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THE THEORY OF PROSPERITY

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The Theory of Prosperity

BY

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To

FRANKLIN HENRY GIDDINGS

WHOSE GENIAL COÖPERATION AND FRIENDLY CRITICISM

HAVE BEEN TO ME OF EQUAL VALUE AS

A STIMULUS TO THOUGHT

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THE THEORY OF PROSPERITY

INTRODUCTION

The industrial changes of the past century have not advanced wages nor relieved misery to the degree that economists hoped. Even the most conservative thinker one hundred years ago, could he have foreseen the inventions, economies, and transformations that have taken place since his day, would have predicted a greater advance than has come. It is no wonder that many reformers lay the blame for this lack of progress on economic laws and try to devise schemes by which they may be circumvented. The equality that has not been brought by economic forces is sought in a complete social reorganization by which competition is to be displaced.

That social evils are economic in their origin is a mere assumption. Economic laws are the outcome of forces acting in the present environment. Evidence for or against them must come directly from the relations existing between men and the environment in which they live. All economic forces arise out of existing conditions and exert an influence on the present race of men. An environment once left is no longer a living force. Its effects, however, may influence men, but it will be through heredity, morals, and

traditions. The present environment acts on men through its economic forces; past environments through heredity and its accompanying habits, customs, and impulses. Long-standing evils, therefore, showing themselves in many races and at various times, are more likely to be the result of heredity than of environment. They are more nearly the same in all existing races than are their present environing conditions.

Adjustment is thus due to a long series of environments; economic laws, to the one in which men now live. The conditions of past environments have no effect on the production or distribution of present wealth. Their social consequences, however, endure, making present tendencies the complex result of economic laws and heredity. It is a mistake to associate misery with production, and to assume that it is due to poverty. They are not the same, though both make men suffer. Poverty is a lack of resources the result of definite economic causes; while misery is non-adjustment due to a lack of harmony between effort and result. The smallness of the result means poverty; the uncertainty of the result, or the failure to produce the desired result, is misery. A savage puts forth a great amount of effort. He is miserable, not from any lack of resources, but because his effort is misdirected. A short period of struggle against the uncertainties of his situation breaks down his bodily powers, puts pain where pleasure should be, and makes life a burden, if it is not cut off by complete failure. The civilized man puts out a similar effort, and he, too, is miserable, not because the return is small, but because effort and result do not correspond. He sees a great product pass through his

hands, but when he looks back on his life he pronounces it a failure; the great product has brought misery instead of happiness. To such a man work is pain, not pleasure, and the goods he acquires do not produce the anticipated satisfaction. The breach is not between effort and return, but between the goods of which the return is made up and the mental states their use is supposed to create. Effort produces goods, but goods do not create happiness. Men attain happiness, not by creating a great product of goods, but by reaching the goal for which they set out. The task involves the whole complex problem of adjustment, and not the simple one of production. Poverty has its causes in the present environment, while the general failure of men to get in touch with nature brings misery, whose causes go back hundreds of generations and affect every relation into which men enter. Some end other than goods must be reached before misery is displaced. Efforts, goods, satisfactions, is an incomplete cycle wearing out the recipient. Only efforts, goods, satisfactions, ends, make a complete circle, or rather a spiral, which in each circuit raises the individual a little above his former state.

It follows from this analysis, that the real social problem is, not as Henry George puts it, Why in spite of the increase of productive power does poverty persist; but, Why, under these conditions, does misery grow until life is not worth living? That many people regard life as a burden cannot be doubted, but this state of mind is due to a misuse of goods, not to a lack of them. The gap is not between effort and goods, but between goods and enduring satisfactions. The economic and the

social problems can thus be sharply contrasted, and should be kept distinct. Problems pertaining to existing conditions should not be confused with problems of heredity. That they are confused is the outcome of the historical evolution of society. Most nations have been formed by conquest, and therefore start with a dominant and a subject class. The former seize the surplus, and force the latter to work for a bare minimum. In primitive nations most of the surplus was connected with the land, so that land-owning and surplus-receiving were practically identical. The economists therefore naturally regarded the ruling and the landed class as one, and called its income rent. Wages thus became associated with the exploited classes whose return did not exceed their costs. Cost and wages on the one side, and rent and surplus on the other, were respectively viewed as identical, and were distinct funds going to sharply isolated classes. This early society was modified by the introduction of capital. Neither of the first two classes possessed prudence and forethought, since the aristocratic landlord lived in the present, and exploited its resources as fully as did the laborer. The qualities of the capitalist were therefore in marked contrast with those of the other classes, and he derived his income from sources which they neglected. Trade and industry gave profits, a new income distinct from the rent of landlords or the wages of workmen. So long as workmen lacked the qualities of capitalists and traders, and could not become aristocrats, the social gulf between the classes made rent, profits, and wages distinct incomes, the sum of which equalled the total product. The shares were thought of separately, not because

rent, profits, and wages are economically distinct, but because the heredity of each class isolated it from the others.

Only a few generations ago, according to received opinion, there was a distinct class for each kind of income. The landlords were isolated socially and politically from the people who engaged in trade. The bankers and other investors were a distinct group receiving interest on their capital without controlling its investment, while separated from all of these were the laborers doing mechanical work and receiving wages. These classes are gradually merging. There is no distinct class of landlords; business managers and investors come socially from the same class; and the laborers readily pass from the class of mere workers to that of capitalists and managers. Social reasons no longer exist for keeping rent, profits, interest, and wages apart because they represent the incomes of distinct classes. There are few persons who do not receive income in all these forms. The laborer owns his house, has life insurance, and keeps a bank account. He may also be foreman in some establishment, or have some position of trust and responsibility by which he shares in the profits of his employer. There is no separation of earned from unearned income. All except possibly the lowest laborers have some of both. Social distinctions form, therefore, no basis upon which theories of distribution can rest. As these differences between landlord, manager, capitalist, and laborer pass away, the terms rent, profits, interest, and wages cease to be clear demarcations of income, and must be newly defined or entirely discarded.

Great confusion has arisen in economic literature out of attempts to redefine these terms. Rent is viewed sometimes as the income of idle landlords, sometimes as a gift of nature arising from the coöperation of its forces with man, and again as a differential due to advantages in production. Capital and interest have almost as many definitions as there are writers on these topics, while wages may mean anything from the lowest incomes of laborers to the largest salaries paid as wages of superintendence.

In these attempts to restate economic theory, the terms rent, profit, interest, and wages do not represent related shares. While all assert that product equals rent plus profits plus interest plus wages, the part of this total product assigned to each share depends upon the definition of these terms. Each writer tends to minimize some of the shares and to expand others, thus throwing most of the income to one share. This can be done by defining three of the terms narrowly, and one of them broadly, leaving it as the residual claimant: it can be done by calling some of these incomes static and others dynamic, thus excluding the latter as temporary; or it can be done by emphasizing the monopoly element, or the advantages of heredity by which one factor grows at the expense of the rest. In any case shares are marked off that will not add, the sum being different from the total product that is to be divided. Putting together the rent of Henry George, the profits of Walker, the interest or exploitation fund of Marx, and the wages of Ricardo or Clark does not give the total product of industry, but a much larger fund.

If society is viewed as the outgrowth of heredity, men

fall into certain groups, each having its income determined by the position and qualities it has inherited. If, on the contrary, men are thought of as in direct contact with existing conditions, the relations between men and nature are the only forces determining the size of their incomes. In a strictly stratified society the share of each class is distinct, and the sum of the shares equals the total product of industry. But if notions of heredity are discarded, the shares are not isolated, but go in a larger or smaller proportion to every member of the community. Each person can now with some justification call his income what he pleases. Both landowner and capitalist can claim that their incomes are due to work and energy with as much plausibility as the laborer. Henry George can make it appear that all improvements augment rent by so defining rent that it includes all the social surplus. The reasoning of Carey pursued to its logical conclusion makes all income appear to be interest. Along with the return on capital goods he puts the income from land, claiming that it results from the capital sunk in its improvements. To this he might have added the income of laborers by assuming that wages no more than compensate for the cost to the race of acquiring the industrial qualities that make labor efficient. If the miseries and pains of natural selection are what biologists represent, the advantages of natural ability give but a small return on the original expense of acquisition. I know of no economist who has justified in this way the gradual enlargement of the total share of the capitalistic class, but many have gone far in this direction, and in all cases their interest fund will not add with the rent and

wages funds of writers who so define labor that wages is the only legitimate income, or who look upon rent as the grand absorbent of all income.

This overlapping of the conventional funds can only be obviated by a new classification. What this should be has already been suggested in the discussion of the difference between poverty and misery. The same thought may be presented directly from the standpoint of income. In its simplest aspect income is either a remuneration for costs or a surplus remaining after costs have been paid. Costs measure the lack of adjustment. In a society perfectly adjusted to existing conditions there would be no costs. All action would be pleasurable and all income a surplus. Such a perfectly adjusted society would not have the distribution of its income in the least affected by class distinctions, heredity, or tradition. Adjustment would break down class barriers, and make all men equal and equally endowed. Income could accordingly be turned in any direction, and its different forms blended in any fashion. Rent, interest, and wages would no longer be isolated funds going to separate classes. Any income may be thought of and properly put under either of these heads. Instead, therefore, of being three distinct funds, these shares are the bases of three view points from which income may be examined. Give to wages its broadest meaning, and both rent and interest disappear. Do the same to rent and interest in turn, and in the one case there is neither wages nor interest; in the other neither wages nor rent. The first view point gives the simple relations of work and pay; the second, those of monopoly advantages; and the third, those of investments. The

income due to existing conditions should therefore be considered under these three heads, as in the following pages. Taken together, they present one aspect of income — income as determined by existing conditions.

There is another aspect of equal importance — income as determined by heredity. The laws of heredity are mental and social; those of the environment are physical and economic. Race traits, customs, and traditions determine the direction in which much of the income of society goes, and their influence tends to divide the income of society into as many funds as there are distinct classes. Existing conditions make for mobile income, and would, if all-powerful, divide it according to some one law. The two aspects will not blend into any simple scheme, nor will the same remedies cure the evils they respectively reveal. The evils of heredity and tradition are overcome by modifying men; those of nature by an increase of energy and productive power. Isolation of these problems is therefore indispensable to clear analysis.

PART I

INCOME AS DETERMINED BY EXISTING CONDITIONS

A Study of Effort and Satisfactions

CHAPTER I

Work and Pay

The life of men is made economic by their need of goods suitable for consumption. Anything that satisfies a desire is a utility. Wants have different degrees of intensity, and in supplying them additional quantities of a commodity give decreasing pleasure. Each consumer has a scale of wants and strives so to arrange his goods in consumption that the most intense of these are satisfied. When experience proves that a given expenditure gives less pleasure than would a greater expenditure in some other direction, less of the first article and more of the second is bought. There is thus for each person a degree of satiety which he tries to secure for all the articles he uses. He so arranges his total consumption that the final increment of each article gives him the same pleasure. Every one has a margin of consumption which marks the limit between his satisfied and unsatisfied wants. This margin rises when his income decreases so as to compel him to supply his wants less fully. It falls when an increase of income permits a nearer approach to satiety. Utility.

All economic relations would be based upon these simple relations if the goods created by nature were not limited. Men, however, can increase the quantity of these durable goods, and the energy used in their production is work. This expenditure of energy is

normally agreeable, but in a decreasing degree with each repetition of a given act. When work is continued, the surplus energy is exhausted and at this point work becomes pain, which, endured for the production of goods, is cost. It must not, however, be assumed that every commodity has a cost and that from every utility something must be deducted for the necessary costs. Pains begin only when surplus energy is gone, and this point may not be reached until the period of production is nearly completed. When his surplus energy is exhausted, the laborer should cease work and consume what he has produced. His goods would be transformed by consumption into surplus energy, and then he would be ready for a new period of enjoyable production. A perpetual round of production, consumption, rest, revival of energy, and renewed production in which no pain enters is thus possible.

Economists often overlook the connection between the consumption of goods and the creation of surplus energy. They think of consuming for mere pleasure, and then of work as a disagreeable isolated act. This concept has been created by the division of society into two classes, the one of which consumes without producing much, and the other produces without much consumption. So long as some men can consume without working, and others must work hard without an adequate consumption, it is easy to think of production and consumption as separate and distinct processes; but both these classes represent abnormal conditions. The normal man seeks to establish a direct relation between his consumption and production, and forms

of consumption that do not result in the creation of surplus energy are dissipation and hinder him in his struggle for existence and superiority. The dissipated are thus steadily eliminated, leaving those whose use of goods tends to create the surplus energy. Every increase of productive power adds to the quantity of goods consumed, and these if properly used augment the surplus energy of workers. They begin the day with more energy and can work longer before feeling pain. Free workmen in advanced societies should not be under the necessity of producing so long that costs appear. Certainly surplus energy can so increase that human wants can be supplied without any costs of production. But even if this is not so, we should bear in mind that production is due to energy and not to costs. Utility and cost are not opposites nor even necessarily related. Energy produces utility, and utility produces energy; otherwise the worker is stupid, diseased, or dissipated. The expenditure of energy becomes cost only under abnormal conditions which progress should make increasingly rare. Costs are merely an incident of production, and do not determine any of its fundamental relations.

When men realize that their command over nature's products is too limited to satisfy their wants, the phenomenon of value appears. A cup of water has no value if it can be replaced from a running brook, but if water is scarce, each cupful has a value because its loss leaves some want unsatisfied. The value of each unit of a commodity is determined by the loss of pleasure that the consumer would undergo if deprived of it. Each unit being like every other unit, they all have

Value.

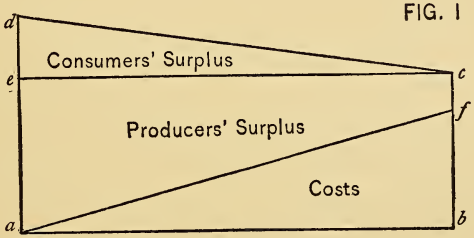
the same value because the loss of any one of them would be equally felt by the consumer. This final unit of each commodity is called the marginal unit, and its value fixes the value of every other unit of goods capable of supplying the same want.

The marginal units of different goods must also have the same value. If the marginal unit of bread gave less pleasure than the marginal unit of meat, the consumer would dispose of a part of his bread and buy more meat. The pleasures derived from the marginal units of these articles would thus be made equal. Each person tries so to round up his consumption that the marginal units of all goods give the same pleasure and hence have the same value. There is thus a marginal unit of consumption the value of which is the same as the value of other marginal units making up the consumption of the individual. As the value of this marginal unit of consumption rises and falls, the value of each marginal unit of goods tends to rise or fall to a like degree. Movements in value are therefore general and in the same direction. A rise in the value of any commodity causes the consumer to use a little less of every other commodity so as to decrease the value of the first article by producing more of it. A new equilibrium is formed in which each marginal unit has a slight addition to its value because the consumer's wants are less fully supplied in every direction.

Value is thus measured in utility and shows the degree to which consumer's wants are supplied. In
Price. distinction to this price is the quantity of one article that must be given in exchange for another. It is thus an objective measurement of goods by other goods.

The price of a loaf of bread is the quantity of meat, sugar, or other articles for which it exchanges. If the price of a commodity rises, it means that the holders of the commodity can exchange it for larger quantities of other articles. The prices of all goods cannot go up or down together. There would then be no change in the ratio of exchange, and hence no change in the price of any article. There can therefore be no general movement in the prices. Some must go down that others may go up. Herein changes in value differ from those in price. The former always move in one direction; the latter in diverse directions. The movements of the one are general; those of the other are always particular and localized.

FIG. I



To represent the relations existing between values, costs, and utility, in a diagram, the increments of the commodity consumed are measured by the length of the base line *ab*. The degree of utility is measured upward from the base line, and in the case of the initial increment the amount equals the line *ad*. Each subsequent increment will have less utility, and if the different increments are arranged in order of the intensities of the pleasures derived from them, the line *dc* will represent the decline of utility as the number of units of

commodity increase. The line *bc* represents the utility of the final unit of consumption, and the figure *abcd* shows the amount of utility derived from the whole consumption of an individual. It is assumed that the consumer takes first that unit of goods giving him most pleasure and that he turns to some other commodities when they give him more pleasure. At a dinner served in one course he will eat first this and then that according to his fancy, coming back for additional increments of the earlier articles when the intensity of desire for the articles he is eating is reduced. If the different increments of the dozen articles on the table be arranged in the order he consumes them, a diagram representing the degree of his pleasure would assume a form like the one given above.

The consumption of all the individuals in a community or nation can also be represented by this diagram if their feelings, sentiments, and habits are nearly enough alike to create a normal type. In the diagram, *bc* is the marginal increment of consumption whose utility determines the value of every other increment. The figure *abce* shows, therefore, the total value of all the articles consumed, while *ecd* shows the consumer's surplus; that is, the amount of utility that consumers enjoy above the value of the goods.

The cost of these articles is represented by the distance between the lines *af* and *ab*. Those first produced have a low cost, which gradually increases as more is produced. The line *af* thus gradually diverges from the line *ab* and is furthest off at the margin of consumption where it equals *bf*. The figure *abf*, therefore, represents total costs. The difference between total value

(*abce*) and total utility (*abcd*) is the consumers' surplus. The net gain of the producers is (*afce*) the difference between total value (*abce*) and total costs (*abf*).

The Social Surplus.

These two funds, the difference between total utility and total costs, are the social surplus. In estimating its amount, all the pleasures that directly or indirectly result from work must be put on one side of the account, and on the other all the pains. In primitive societies the pains are many, while the pleasures are few in quantity and limited in variety. The original qualities of land and men were not of a character to encourage production. Man, not being adjusted to nature, got from her a most reluctant response to his demands; but the surplus increased with each new adjustment between the two.

Perhaps the most notable forward steps in man's adjustment to nature are due to improvements in productive processes and machinery. Each invention does away with pain and increases the quantity of attainable pleasure. Greater knowledge results in a closer adjustment to nature, and more capital enables men to provide for the satisfaction of their wants a long time before they appear. They can thus take advantage of serial production and reduce work to a minimum. Transformations worked in the character and capacities of men are also striking and important. Skill is acquired only by persistent and painful application; the habits fitting men for productive enterprises are the slow product of years; but when a race has become industrial, these aptitudes, qualities, and inclinations are transmitted from generation to generation, as

a permanent possession of the race. What the fathers did with effort the sons do naturally, and their capacity is transmitted in a more perfect form to their successors. The skill and knowledge earned by ancestors come to children in pleasing forms. Education is a pleasure that has no costs, the period devoted to it being the most joyous of all. The young of each generation start on their productive epoch, having already in hand a large surplus for which no costs were endured.

Changes in nature and in producers are not the only causes of an increasing surplus. As consumers, men also become better adjusted to the goods nature provides. A primitive man has few wants, and these are mainly for articles that nature provides with difficulty. A few thousand of such men roam over a continent and yet have their wants but partially supplied. With progress new articles are produced that supply intenser wants, and at the same time all goods are more abundant in quantity. The appetites and passions of men are also modified, making them do and want what is more in conformity with their environing conditions. Each new want limits the field in which old appetites dominated, and the great variety of new impulses soon brings the old under control.

There are thus many aids to adjustment that never have costs, and the surplus grows as they increase in importance. Nature acts gratuitously; industrial qualities are a free inheritance; the fund of permanent capital is always increasing, and men's tastes and habits are so modified that they drain nature less severely, while the consumption of individuals becomes more har-

monious and less exclusive; at the same time the antagonism of individual interests is reduced, enabling men to devote less time to mere struggle and more to true adjustment. With all these forces in full operation the surplus grows, pains decrease, and contentment becomes general. The old problems about costs becoming subordinate, they can no longer account for the value of goods. What, then, limits the supply of goods if marginal costs do not equal marginal utility? This legitimate question must be answered before the difficulties connected with the problems of value can be cleared away.

The origin of value.

Every healthy person starts the day with a fund of surplus energy, the expenditure of which is pleasing, and makes work pleasurable while it lasts. Each one can produce a number of goods without any cost, and these goods when consumed create a fund of surplus energy by which the next day's work can be carried on. It would seem possible therefore to live and work without pain. Men, through the expenditure of energy, would replace the articles they withdrew from the common stock for consumption, and could take freely what they wanted without reducing the supply of goods so much that they would have a value. Goods would thus be as free as the water in a brook or as the free goods produced by nature without the aid of man. This condition of affairs is prevented by the growth of wants. The satisfaction of one want awakens a desire for new goods to satisfy other wants not before felt. The surplus energy of individuals has now more channels of exit, and less of it can be expended in the production of any one good. With an increase of satis-

factions there goes normally an increase of surplus energy, but the rate of increase of the latter is not so great as that of the former. Wants grow more rapidly than productive power. This is an elementary law, to which there are no exceptions.

It might be said that wants grow geometrically, while productive power grows arithmetically; but whether this be so or not, the lack of productive power to satisfy all of men's wants is clearly apparent. A limitation of the supply of goods is a necessary result of this relation of wants to productive power. No amount of energy, no degree of pleasure in production, would avoid this limit to the supply of goods. Value is thus a necessary phenomenon even under the best of social conditions. It is due to the fact that goods must be produced, and not to the fact that the act of production is painful. Goods produced pleasurably do not have a less value on this account. On the contrary, they have a greater value. Men who enjoy their whole life have more wants, and thus feel the limitation to the supply of goods more keenly than do those who suffer from pain. Every new pleasure forces up the margin of consumption and leaves a greater field of unsatisfied wants. Values thus increase through the pressure of wants. Pain, on the other hand, limits the wants of men to the few things that allay it, and thus decreases values until at length a point is reached where suicide is rational. Then only is the sum of values equal to costs.

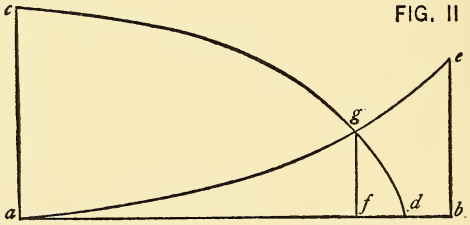
Thus the real cause of value is not to be found in men's pains, but in the limitation of goods due to the lack of time to produce more. Each day has only twenty-four hours, of which eight are for sleep, and the remaining

sixteen must be divided between production and consumption. With the growth of productive power there are goods to consume, and more time is needed for their consumption. The working day must, therefore, grow shorter with each increase of productive power. The supply of goods being less in proportion to men's wants, values go up. A keener, more active life results, but in the end men are farther than ever from complete satisfaction of their wants.

The need of limiting the time of consumption destroys some of the utility of goods. A dinner eaten in fifteen minutes affords less enjoyment than if an hour is taken. Houses that can be enjoyed but a few hours a day, horses that can be but occasionally used, clothes that are seldom worn, and other articles that from lack of time are rarely seen, lose much of their possible utility. There is thus an interference in consumption due to the fact that no one article can be fully enjoyed. This loss of utility sets the natural limit to the day's work. Men stop working when the utility of the new article is less than the loss of utility in the use of the already existing stock of goods, suffered because the time of their consumption is cut down. The value of each moment's time to a consumer is fixed by the gain in utility which a larger enjoyment of the existing stock of goods would afford. Any article that takes this time to produce will not be made unless its utility is greater than the value of the producer's time to him as a consumer. The marginal article produced always has this value, and thus measures the interference in consumption. These facts may be illustrated by the following diagram.

Let the line *ab* represent the sixteen hours of each day used in production or consumption. The utility of the first article produced is equal to *ac*, while that of the succeeding increments is measured by the distance from the line *ab* to *cd*. At *d* there is no surplus and hence no further inducement to work. The line *ae* is drawn so as to measure the loss due to the lack of time to enjoy fully the goods already produced. This loss is slight on the first articles produced, but when the period of production is extended through many hours, the loss becomes serious. Each added hour of production forces the consumption of goods into narrower limits, until, at length, their utility is practically destroyed.

FIG. II



The line *ae* therefore diverges farther and farther from *ab* as the working day is lengthened. It also diverges more rapidly if the productive power of the laborer is high than if it is low. The more goods he produces in a given time, the greater is the interference in consumption and the greater is the loss resulting from a further use of his time in production. Under these conditions the working day is not equal to the line *ad*, representing the time during which a surplus can be obtained. Its length is fixed by the point *g* where the lines *ae* and *cd* cross. The line *fg* measures the surplus at this point,

and it also measures the loss through the interference in consumption. The gains of working would be offset by loss through the impaired consumption of the goods already produced. The line *fg* is therefore the margin of consumption, and each increment of goods has a value equal to its utility. It does not, therefore, need the presence of pain to give a value to goods if they are produced by men with varied wants. The limitations of time suffice to check the increase in the supply of goods, and goods limited in quantity always have value. So long as wants grow more rapidly than productive power, the supply of goods will fall short of the demand.

Cost and expense.

There are two methods by which to measure the obstacles which stand in the way of production. A man may think of himself as in direct contact with nature, struggling to obtain from it the objects of desire; or he may think of himself as possessing a number of articles, and exchanging them with other persons. In the first case the measure of value is the pain or discomfort of this direct conflict with nature. An isolated person would be conscious of nothing but of the difficulty arising when he tries to provide for his wants. Each bushel of wheat or pound of cotton would mean a certain amount of effort expended, and the value of the product would be equal to the pain of his effort, and the accompanying loss of time.

But when a complicated industrial system arises, men supply their wants by exchanging what they have produced for goods possessed by others. The problem now is to get from others as large a quantity as possible of their goods, in exchange for a given amount of one's

own goods. The measure of value now is not the obstacle imposed by nature, but the amount of goods that must be given up to induce others to make an exchange. If a bushel of wheat must be given for four yards of cloth, it makes no difference to the man who gets them in exchange what the difficulties of production were. The cloth gets its value to the new owner from the value of the wheat he gave up to secure it.

In the exchange of goods the costs play no part unless the person who receives the goods can make them himself. Were a tailor to demand six pairs of shoes for a suit of clothes, the shoemaker would not make the exchange if he could make a suit of clothes with less labor than he could make the shoes. Here costs would at least check the rise in price of clothes, and if the tailor could also make shoes he would have a similar check to the rise in price of shoes. But these checks to the rise in price of exchanged articles disappear under complex industrial conditions. Individual producers cannot make the articles they get through exchange, nor can they always produce the whole of the article upon which their purchasing power depends.

The division of labor takes from workmen the ability to make many of the articles they consume. They increase their purchasing power only by producing more efficiently the article they offer in exchange. This fact throws costs into the background as a regulator of value. The interest is now centred not in the cost of production of the commodities secured in exchange, but in their expense measured in terms of the goods given up for them. Cost is the effort of producing

commodities; expense is the inducement necessary to get others to produce them, and this inducement is usually much greater than the sum of the producer's costs. If a workman gets three dollars a day in one occupation, a demand for his labor in some other direction is effective only when a larger sum is offered him. It matters not that his costs are only a dollar a day. He will not give up a position worth three dollars a day except for a greater wage. There is in this case a sacrifice of a surplus of two dollars a day, and one must be compensated for his sacrifice as well as for his actual cost. Expense must always equal the sum of sacrifice and cost.

Sacrifices differ from costs in that they demand the giving up of one form of surplus to get another; but there is no pain involved in this substitution. The only pains are the costs resulting from man's contact with nature. The net surplus of a society is not the total utility of its goods minus the sum of its sacrifices and costs. Sacrifices represent merely a sum of utility taken from one group of persons and given to others. It is therefore a problem of distribution and not a question of the difficulty of production. From the total utility of all the goods there is but one real deduction. Total utility minus the costs equals the social surplus. But the marginal increment of consumption must have a value equal to marginal expense, and this equals the sum of costs and sacrifice. Expense thus includes an element of pleasure as well as an element of pain. With the advance of society the former increases and the latter declines. Sacrifices thus become the main element in the measurement of value, and in the end may become

its sole measure. Painless effort would still have a high value if the unsatisfied wants of men were many and intense. A free workman has many opportunities for employment, and these enable him to demand of his employer a compensation for the loss of surplus he could get from them. The following figure will illustrate these points.

Let the quantity of goods be measured on the line *ab*, the costs by the distances between the lines *ab* and *ef*, and the sacrifice by the distances between the lines *fc* and *fe*. The workman will think both of the cost and the sacrifice involved in production, and will demand a

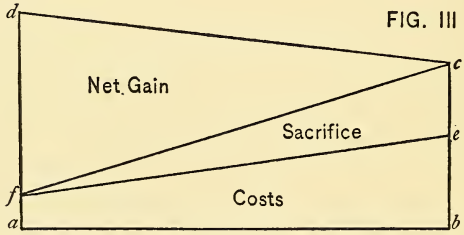


FIG. III

reward equal to the distance between *ab* and *fc*. The consumer, however, will have in mind only the relation of utility to expense. The pleasure derived from each increment will be compared with what he must lose to get it. The net utility of each additional increment of consumption grows less, and its expense grows greater, until the two quantities are equal. The point *c* indicates where the surplus of the consumer falls to zero. This will be the margin of his consumption, and the point where production ceases. No further exchange takes place, because one of the parties has nothing to gain by it. The producer still has a surplus equal to

the line *ec*, but he secures no gain by more work, the interference in his consumption due to longer hours of work creating a loss equal to the gains from this work.

The normal working day.

The length of the working day may be viewed from two standpoints. The employer is interested in the net surplus left after the cost of the labor has been paid. The pleasures and pains felt by the laborer are disregarded except as they affect the net surplus of industry retained by the employer. It is in his interest to continue production as long as the net produce grows. Should work stop before this point, the laborer has a net surplus in all he produces. The return on capital, however, is less than it might be. The working day extends to the point where cost and value are equal only when the number of laborers is so great that they are willing to work for a bare living. The classical economists assume that this is always the case. The laborer is said to work for a living, while the capitalist is working for a profit. The interests of the two thus coincide, and production continues until the final act has no surplus. Dependent laborers are always in this position. They must work for necessities and not for utility. The working day is therefore extended until a further extension of the working time yields no profit.

A free workman works for utility as well as his employer, and hence his only rational standard is the gross or total utility derived from a day's work. Having the option of working for other employers, or of entering some business on his own account, he cannot be compelled to work merely to increase a net produce in which he does not share. Net utility is a standard only when one person desires to measure the gain he

gets in working with or for another person. So long as A gets a net gain in working with B it pays him to continue the operation. The point of no net gain marks the place where this coöperation ends, but it does not determine the point where A will cease working. He might have stopped earlier if he had been alone or he might have worked longer. When alone, the gross return in utility controls his activity. A Crusoe or a peasant farmer will work while his energy lasts, but will stop when fatigue is felt. He wants the greatest amount of utility, but this is secured only through the greatest amount of energy. If he works until his pains balance his pleasures, his energy falls off and the next day he is less capable of work. Great energy and pain are incompatible; the latter must be shut out, or the former will be lost. The conservation of this energy depends upon a series of transformations that must be complete and uninterrupted. Energy exerted on materials produces goods, which when consumed create utilities, and the enjoyment of utilities through physiological changes restores the surplus energy. There should be no loss in this round of changes. The energy of the next day should at least be equal to that of the day before. Pains always involve some loss in this fund of surplus energy. A pleasure counteracted by a pain does not end in the restoration of the surplus energy with which the circle of changes began. If many pains must be endured, the tone of the workman is lowered, his power to enjoy utility falls off, and his surplus energy disappears. He becomes a mere automaton valuable to society only through the net surplus he creates for others.

In the consideration of pain two kinds, the temporary and the enduring, must be kept apart. There are bound up with production many irregularities and accidents involving pain. Harvests are irregular; cold snaps and heat waves come suddenly; floods and fires devastate; machinery breaks down; and in each case pain must be endured to save a destruction of property or life. A capacity for the endurance of pain must be cultivated to meet these exigencies, but the motives for facing them boldly should not be a mere desire to get a greater individual pleasure than pain. The general welfare should be in the foreground. To endure pain for hire is degrading. A soldier should not fight because the pain of getting wounded is compensated for by the pleasures of the campaign or by the leisure of the hospital. The end of war is the removal of some great evil through which a nation secures greater permanent pleasures with no deduction or tribute. Each temporary pain in industry should be faced so as to remove it. The loss of one individual in this case is made up, not by his compensation, but by the feeling that all men are better off. "Never to endure pain for mere wages" is a rule that removes actions of this kind from an economic to a moral plane.

Permanent pains have, however, no moral quality. Men who suffer from them sink in the scale of being, and lose in the end all their moral qualities. Pure fatigue, encountered every day, belongs to this class. Cost, as it is understood in economics, is the regular endurance of fatigue due to the extension of the working day after the surplus energy of the worker is exhausted. The pains of each day counteract its

pleasures, leaving no normal surplus of utility to be transformed back into surplus energy. The physical being thus deteriorates, the capacity for pleasure is gradually lost, and work becomes a drudgery performed only under pressure. Men should face temporary pains boldly, but for the grind of mere fatigue they should accept no compensation. The expenditure of surplus energy is pleasurable and adds to the total sum of the day's enjoyment. Work should cease before it is gone.

There are two ways in which the relation of the curve of activity and that of utility may be viewed. The fund of activity may be put to use in creating material objects or in modifying the external environment. There is then a return current of goods capable of creating satisfaction. It may also be said that the nutriment and stimulus of satisfactions create a fund of surplus energy which finds a vent in pleasurable activity. In either case the connection of the curve of activity and that of the utility of satisfaction is plain. Utility should produce activity, and activity should produce the sources of satisfaction. When utility produces activity, the consumer is normal. When energy produces goods for consumption, the producer is adjusted to his environment. The pleasure of getting would then be as intense as that of consuming, the motives for production being stronger or weaker as the desire for the goods grew or fell off. In this case a strong desire for an article would be accompanied by an equally strong desire for activity in the direction demanded by its acquisition. As the want became partially satisfied the intensity of the pleasure of consumption would diminish, and at the same time the desire for activity in this direction would be reduced.

The curve of pleasurable activity would then be the same as the curve of utility created by consumption. The normal working day under these conditions is represented by the following diagram.

Let the quantity of goods produced in a day be measured on the line *ab*, their utility by the distances between the lines *ab* and *cf*, and the pleasure or pain of their production by the relation of the lines *ab* to *dg*. The laborer starts the day with a fund of surplus energy which it is pleasurable to exert. The distance of the line *de* below *ab* measures the pleasure of activity. At *e* the surplus energy is exhausted and the work ceases

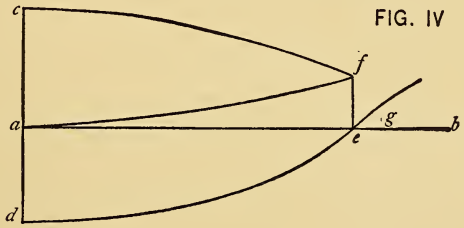


FIG. IV

to be agreeable. If continued longer, it becomes painful to the amount indicated by the distance between *eb* and *eg*. The normal motives inducing a free man to produce cease to be effective at *e*. He works no longer, unless some danger threatens the goods he has already acquired, or exceptional circumstances arise. A storm, a fire, or an accident will stimulate his energies, but when the crisis is past he will increase the period of rest until his normal condition is restored.

The workman begins each day with a fund of surplus energy equal to area *aed*, in the expenditure of which he produces goods to the amount of *ae*. These goods

in consumption yield a utility equal to the area *aefc*, making the total pleasure of the day equal to the area *cdfe*. This utility in turn is transformed into surplus energy, giving the workman a new fund of energy equal to the area *aed* with which to work the next day. The work could be kept up in this way from day to day without any deterioration on the part of the laborer. Should the working time be extended beyond the point *e*, the pains endured counteract some of the utility created, and it therefore is not transformed back again into surplus energy. Each day of such work would reduce the laborer's fund of energy, cut off his pleasures, and force upon him a mere mechanical existence.

Should the laborer view his welfare in terms of value instead of measuring it in terms of utility and energy, the same conclusion would be reached. As additional quantities of goods are produced, the interference in his consumption increases. Each article is less fully enjoyed if he uses more of his time in production. The distance from the line *ae* to *af* measures the interference in consumption. At the point *e* this loss is as great as the gain in utility derived from the further production of goods.

The line *ef* marks the margin both of production and of consumption, and therefore would be the limit to the increase of value. So long as the condition of the workman is normal, it does not matter whether he measures his welfare on the basis of utility, energy, or value. They all coincide because their amounts are dependent on the same ultimate conditions. If the surplus is fully conserved, energy is transformed into

goods, goods into utility, and utility back again into energy. While this fund is stored up in the human system it is measured by the surplus energy it can create; when in the form of goods it is thought of as values, and when goods are consumed it becomes utility. Unless the fund is not conserved in its transformations, the three modes of measuring harmonize in their results. The normal condition of the laborer is determined by this harmony of results. The working day cannot be so extended that the pain of fatigue regularly occurs, without destroying that part of the social surplus stored up in him. All painful effort is overtime, and should be paid for at higher rates. Each individual must conserve his own part of the social surplus, or society suffers as well as himself.

False measurements of costs.

The theory that costs determine value rests upon the notion that labor is disagreeable. There have always been, however, ways of expending energy that were regarded as pleasurable. The warrior exerts himself more violently than a workman, and yet each of his acts is looked upon as a source of enjoyment. So, too, hunting, fishing, and athletic sports are regarded pleasurable occupations. The end the sportsman or the athlete has in mind is not the product he creates, but the pleasure of the pursuit. It cannot be said that activity or even strenuous exertion is painful so long as there are ways of exerting energy that every one highly enjoys.

Labor is irksome not because regular bodily movements cause pain, but because of the disagreeable associations connected with it. In early societies men were divided into the free and the servile. The free

man showed his superiority by abstaining from production. A servile class worked while he protected them, or at least prevented others than himself from exploiting them; and thus work is associated with servility. The notion that rest is better than activity is due to these ancestral conditions. An overworked servile class readily acquires the feeling that the highest state of existence is one of inactivity. Cut down the hours of labor so that some surplus energy remains, and other forms of activity will spring up with pleasing associations. With new social conditions other associations can be formed, making industrial occupations honorable, and thus making them pleasurable. Surplus energy is the normal result of the consumption of goods. The utility of these goods is merely an index that they can through physiological changes be transformed into surplus energy. The more the utility, the greater is the amount of surplus energy they are capable of generating. The fund of energy that a man can exert should be as great as the fund of utility enjoyed in consumption. Normally the man who consumes what he produces would generate enough surplus energy to reproduce the goods used up in consumption. And these acts would be physiologically pleasurable. Consumption would create pleasing mental associations to supplement the pleasing physiological sensations if the workman were sure that all he produced would be his to enjoy. Isolate a man from all his fellow-men, and the associations connected with work are agreeable. It is only when labor is socially despised that he feels its irksomeness and tries to avoid it.

Misery and costs are not synonyms. There are a

thousand sources of misery which have no connection with men's endeavor to supply their wants. Those that do not work are often at the point of committing suicide. Work may even destroy the misery due to other causes and make the worker happier than though it were not performed. A woman worrying over servants and social etiquette may be much less happy than a mother who does her own work and cares for her children. A poorly cooked meal makes a day miserable, and yet the sufferer, if a worker, charges it up as costs when it ought to be put on the ledger as due to his social life.

Production is a contact with nature. This usually has its ten hours each day. The other fourteen hours belong to leisure and to social life. The balance of pleasures and pains of these hours should not be confused with the similar balance of the hours of work. If the happiness of home life is marred by discord; if food is not properly cooked; if sleep is disturbed; if the social status is not satisfactory; or if other evils reduce the happiness of the hours of leisure and recreation, — the pains endured are not economic costs. They have nothing to do with production, and it only creates confusion if the worker gets his two ledgers mixed. Costs are the necessary pains of production. Men produce to consume, and their pleasure in consumption outweighs the pain endured in production. But this does not mean that they should add up all the pleasures enjoyed in a day and compare them with all their pains under the title of costs. Is life worth living? is one problem; Do costs exceed the utilities produced? is another. The former is decided by gross figures; the

latter demands a critical analysis of the returns. The utilities in the latter case are the net utilities, the difference between the gross pleasures of the day and the pains that grow out of or are associated with them. This net sum is the economic utility for which men strive, and the sum of which should exceed costs. The pleasure of living minus the misery connected with leisure must exceed the costs of production. Only when the ledger is kept in this form can the nature of costs be clearly seen, for much of the so-called costs of work are parts of the misery of leisure. A man does not feel that working is dishonorable or degrading when working. This feeling comes during his leisure hours, when he associates with people who do not need to work. Their opinions interfere, not with his production, but with his social status. It is not correct to put the social penalties imposed on workers among costs. Production is a relation between men and nature, and only nature's pains are costs. Social penalties belong to the miseries of leisure, and should be charged up to their proper account.

There is another fund of misery that is wrongfully charged up as costs. Dissipation is a bad use of one's leisure and goods in which men indulge from a bad method of keeping their accounts. They think of the immediate pleasure of a vicious act as its utility, and associate its evil effects with the costs of the succeeding epochs of production. A man who spends his wages Saturday night and Sunday on liquor, finds himself on Monday without the surplus energy needed to do his work. The bad effects of the dissipation linger all the week and make his life miserable. These pains,

which are really the penalties of dissipation, he associates with the work he is doing and imagines that his costs are great. Had he used his wages to secure normal pleasures, none of the pains would have been felt and the work would have been agreeable.

When men feel the effects of age, they charge up the pains they endure to the work they have done. In reality, however, most of such pains are due to acts connected with their periods of leisure. They have carelessly exposed themselves, indulged in harmful luxuries, deprived themselves of necessary sleep, worn improper clothing, and done a thousand other acts to exploit temporary pleasures or to maintain their social position. Most diseases come from stomach troubles, weak lungs, heart failure, apoplexy, and other results of indulgence and carelessness. The diseases of the well-clothed, well-housed, well-fed laborer are few, and these alone can be properly reckoned as costs.

In judging of costs it is necessary to keep in mind the contrast between struggle and adjustment. Struggle is a relation between men. By it is determined who shall have the superior positions, who shall consume the goods produced, and who shall displace his neighbor. All these efforts, no matter how painful, merely dispose of what has been produced. They do not aid production; on the contrary, they lessen its amount. Production is determined by the degree of adjustment; distribution, by the intensity of struggle. The one follows laws fixed by nature; the other is social and is augmented or abated by the customs and institutions of society. The pains of struggle are not costs; they are endured to get goods away

from others, not to create them. Only acts of adjustment are production, and its pains alone are costs. But even these acts are not necessarily costs. The goods enjoyed by men are not wholly the results of their labors. The natural power of the land, wind, water, and sun help men in production and are employed by men without any costs. Besides these natural forces, the results of past civilization aid in the reduction of costs. The original qualities of the land have been improved, much fixed capital created, and many obstacles to production have been permanently removed. Each generation finds itself better off than its predecessor. Great improvements have also been made through inventions, discoveries, and other additions to the general stock of knowledge. Men have also been made better by the transmission of industrial qualities. Acts painful to the fathers become pleasurable to the sons through inherited modifications of the muscles and nerves. Adjustment thus gradually becomes more easy unless stopped by the intensity of struggle.

All these considerations must have weight when men seek rationally to determine their costs. A struggle for supremacy must be prevented, dissipation avoided, and disease removed before all pains should be included in costs. When this time comes, the surplus energy of men will be great enough to supply their wants without extending the time of labor beyond the point where fatigue begins. In the meantime costs are real, but to those forced into unfavorable positions they are not as great as they seem, and have little influence on the value of goods. The less fortunate are crushed by the

pressure of struggle and not by the pressure exerted on them by nature in the form of costs. Misery is not a product of nature: it is man-made.

The surplus is the net proceeds remaining after the expenses of production have been paid. This fund can be used for enjoyment without interfering with the process of production. It is the difference between the cost of production, including the replacement of fixed capital, and the total utility goods yield when used. There is thus a fund continued over to the next epoch of production to aid in subsequent production and one that is apparently used up. The distinction, therefore, has been drawn between productive labor making goods that aid in subsequent production, and unproductive labor creating utilities destroyed in the enjoyment. Each epoch of production starts with the appropriation of some natural forces, agents, or material, and ends in their disappearance by consumption. A series of creations, transformations, and final destruction of goods make up the economic life of a nation, and the social surplus seems a disappearing fund of which nothing more is heard.

The conservation of the social surplus.

This view of production is the result of thinking of the economic process merely in terms of goods. Commodities appear apparently drawn freshly from nature, and disappear again in the chaos of destroyed material. But while the material returns to nature, its essence is not lost, but reappears as vital energy. Through the enjoyment of utilities the body is refreshed and built up. The physiological changes following the enjoyment of utilities end in the generation of energy which expresses itself in activity. Productive labor is that which

reappears in goods; productive consumption is that which comes to sight again as energy capable of producing goods. Even if the economic process is viewed solely from the standpoint of goods, the normal consumption of individuals indirectly creates goods by creating energy, thus making future production possible and pleasurable. In each epoch one fund of energy makes capital to assist the production of the subsequent epoch, and another fund is through consumption transformed into energy again, and as energy utilizes the productive instruments made in the preceding epoch. All the energy of the first epoch thus reappears to assist in the second. Energy under normal conditions is never lost. It reappears again and again so long as waste or needless dissipation are avoided.

The social surplus is thus an enduring fund, disappearing only to reappear in some new form. Goods become utilities, utilities are transformed into energy which, as work, creates new goods. The round of change is perpetual, and in all of its changed forms the surplus is a source of pleasure. While goods are being consumed, the enjoyment is called utility; when surplus energy is being expanded, another fund of pleasure arises from the love of activity; and when this activity creates goods, they in their relations to the workmen are the source of æsthetic pleasures. Goods destroyed in use are utilities; æsthetic feelings are aroused not by this destruction, but by the contemplation of what is produced, and through the relations that exist between enduring products. Instead of these two funds of pleasure being the same, they are opposing uses of goods. The æsthetic element disappears when the

process of consumption begins. It lies in the relation of goods to one another or to their producers, but is never a relation of goods to their consumers. An æsthetic complement is injured by any loss of its parts or relations. Goods for consumption cannot be enjoyed without this loss. The two kinds of pleasure are thus distinct, and they in turn are different from the pleasure of activity.

In its circle of change the social surplus thus assumes three distinct forms, and in each of them it is a source of pleasure. The worth of life is not to be measured by the utility of goods consumed, but by this fund plus the pleasure of activity and æsthetic enjoyment of goods. Utilities that do not reappear as pleasurable activity, are bad, and so is any activity that does not end in some æsthetic enjoyment. The test of each is that it is followed by the pleasure next in the series. There is a loss of the social surplus if the pleasure of consumption has not as a sequence an equally great pleasure of activity; and a similar loss results if the energy when expended does not reappear in æsthetic forms and relations of equal value as pleasures. A social surplus once created, therefore, should be a permanent possession of society, but never remaining in one form or in the possession of one person. Isolated pleasures represent either a loss to society or at least the suppression of a part of the surplus until the enjoyer throws it once more into the common fund by some form of activity. Enjoyment that does not inspire productive activity stops the process of transformation essential to the continuance of the social surplus.

When labor is painful, a part of the surplus is de-

stroyed, since the pain neutralizes an equal amount of pleasure. To this loss must be added that due to dissipation. From an economic standpoint dissipation includes every use of goods that does not result in the building up of the body, and thus fails to create a fund of surplus energy. Many utilities give satisfaction, but through overindulgence weaken instead of strengthen the system. The normal tendencies of society check these indulgences and so vary the consumption that each utility adds something to the vigor of the body, and to the motives that increase future activity. When this is not done, a part of the social surplus is destroyed, society is made poorer, and workers are forced back nearer the point of mere existence. The losses in these directions are further increased by every form of disease. Only healthy bodies can transform utilities into surplus energy. Sickness, the lack of sanitation, lethargy, or any form of imperfect assimilation lowers the vitality of workers even more promptly than does painful work or dissipation. Where these evils are not avoided, much of the social surplus is used up.

This waste of surplus is reduced by each step in the adaptation of men to external conditions. Inventions and discoveries make overwork unnecessary, while the greater variety of occupation reduces the need of so concentrating effort that it is painful. Through the elimination of the weak, and through a stricter adhesion to the moral code, dissipation becomes less tempting. Morality puts a check on the use of goods for mere pleasure and favors their use in such ways that they reappear as energy. Moral rules often seem mere negations because they prevent dissipation; but to the

degree that they check it they force men to be temperate in the use of goods, and thus create energy. Disease is also reduced in amount by the process of progressive adaptation. The transformation of food into nutriment is thus made more complete; energy is increased and more of it is expended in production. The circle of change by which goods increase energy and energy is expended in making goods, becomes more perfect with each advance toward a normal life. The normal man has no losses from imperfect assimilation, dissipation, or disease. A surplus once created remains forever active, creating pleasure in each of its reappearing forms.

The wages of mobile labor.

When the working day and the motives for activity are normal, costs have little to do with the fixing of the rate of wages among free laborers. Most of their pains are not due to production, but to dissipation, disease, and other causes more closely connected with the period of rest and recreation than with the working hours. These evils have their sources in the homes of workmen, not in their workshops. Even if they suffer each day an amount of pain equal to their total enjoyment, there would still be a large surplus of pleasure from the period of production, because much of this pain is in no way connected with it. All man's pleasures have an economic origin; most of his pains have not. There is thus a large surplus in the area of industrial activity.

The prevailing theory of wages by emphasizing costs makes them the determining element in fixing wages. It is assumed that there is a downward pressure on each group of laborers, causing wages to fall until the laborers

least skilful or least favorably situated are forced to the wall by their costs exceeding the value of what they produce. Each group has its rate of wages sustained by the elimination of the weakest laborers. The better laborers have a differential advantage giving them a slight surplus, which they lose when more of the weak laborers are forced to the wall. The protection of the strong thus lies in the presence of the weak.

The rate of wages may, however, be protected by the advantages of the strong as well as by the costs of the weak. Free laborers have a choice of occupations. To secure them in one industry, a wage must be offered equal to what they can get elsewhere. If no employer will give them this alternative, they can work for themselves. Under these conditions, wages are fixed by the option which exists of entering some other occupation. Any fall in the rate of wages in one industry causes some workmen to avail themselves of this option. The number of workmen in the first industry is thus reduced and the rate of wages restored. The movement from industry to industry that holds up the rate of wages is among the strong of each group. The weak members of the group may not possess this option, yet they will gain by the power of the latter to withdraw. The strong thus protect the weak instead of the reverse, as is maintained by the advocates of the cost theory of wages.

To compare these theories, let a group of laborers be represented by the letters from A to Z, of which A is the strongest, Z the weakest. Let the other members be represented by the letters nearer to A if their strength approaches that of A, or nearer to Z as

their weakness approximates his. The series from A to Z would then show their relative strength and weakness. Assume also that in the diagram distances from the line *ab* to *ad* represent the varying costs of these persons, increasing from that of A to Z, and that distances from *ab* to *bc* represent the return in the alternate occupations open to them. The option of Z would be worth little to him, but A's option would be as valuable as his present position.

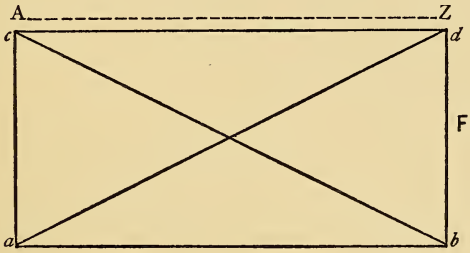


FIG. V

Under these conditions, a lowering of the rate of wages would cause the withdrawal of both A and Z. A would make use of his option, while Z would be forced to the wall. Either theory of wages might, then, be held to be true and to account for the facts. But if A's option is greater in amount than Z's costs, or Z's costs greater than A's option, only one of the theories would be correct. What, then, is A's option worth and how does it compare with Z's costs? Plainly this is decided by the stage of civilization in which the workmen live. A's option increases in value and Z's costs decrease with every step in industrial progress, and in advanced societies the former exceeds the latter. Free laborers have valuable options, and their wages

are determined by the options of the strong in each industrial group.

To show how A uses his option, let the value of the options of the members of two groups M and N be again represented by the distances between the lines *ab* and *cd*. In group N the strongest member is A, who can remain where he is or enter group M. The inducement is not great enough to impel action so long as the difference in wages is only twenty cents, but any reduction of the wages of his group below one and a half dollars will cause him to enter the other group.

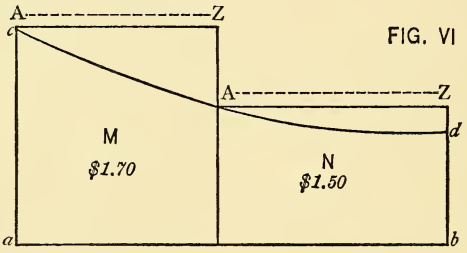


FIG. VI

The obstacle to the change may lie in the breaking up of pleasant social relations or in the need of saving so that he can prepare himself for the new occupation and secure the necessary tools or capital. He may also spend more on the education of his children and thus put them in the better occupation even if he cannot change himself. He would thus indirectly reduce the number of his class and help to restore their wages. Some of the strongest members of each class move up to better occupations, and their withdrawal or possible withdrawal keeps up the wages of the weaker members of their group. There is always a stream of progressive individuals working up from their present station.

The descendants of each group move up to better positions, leaving what their fathers had to those coming from lower groups. Even in the slums of great cities there are many who push up into better social conditions. While this movement continues it is the strong who protect the weak, and hold for them advantages that they could not secure for themselves. Z does not sink in the scale of existence because of A's monopoly, and his wages remain far above the costs he endures.

There is a downward movement, but it is due to dissipation and not to costs. Some will indulge in vicious practices and thus destroy their industrial qualities; or they may be careless, and thus break down their health or destroy their family by a disregard of sanitary and other vital conditions. Disease and other dissipation to some extent thus cut down the number in each group. They operate, however, to keep up rather than to cut down wages because men become careless and dissipated far above the point where their costs equal their total enjoyment. Men will also turn into tramps or live off their friends and relatives long before their costs destroy their surplus. The opportunities of the criminal, the tramp, and the pauper are too great to allow the wages of workmen to be forced to a minimum. They and other social dependents form the lower stratum of society and use an option of which those least fit for industrial enterprises can always avail themselves.

The relative position of the different industrial groups is seen in Diagram VII, the line *cd* again determining the value of alternate occupations. In each group, A has an option of equal value to his present position. His wages cannot be forced down without causing his

withdrawal. The other members of the group thus get the wages A demands and have the same advantage from his option that he has. The movement is from the lower to the higher groups. The highest group has the greatest monopoly power and its members can the most readily protect themselves. Each lower group gets its protection from the group above it, to which its strongest members withdraw if their wages are depressed below the normal difference between the two groups. Every class thus has some option open to it,

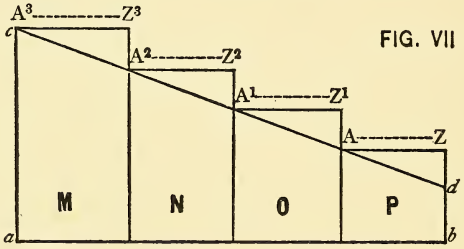


FIG. VII

and hence enjoys some monopoly power. The key to the situation, however, lies in the highest industrial class. So long as its members open up new opportunities to labor and increase their incomes, every other class in a measure participates in their monopoly power and raises its rate of wages. The push of the energetic business man increases the monopoly power of every class below him. Wages are thus set by that portion of the world's workers having the least pains. The monopoly power of each group, gained through the options of its strongest members, is the sole determinant of wages and is the one thing for which laborers should seek. New options can do what no amount of effort in other directions can accomplish.

CHAPTER II

Monopoly Advantage

Production is primarily a problem of values and wants. Each workman strives after an equilibrium between the outgo of energy and the return flow of goods. As wants increase in intensity, more energy is exerted, a better adjustment to nature is attained, and a greater quantity of goods comes back to the worker. While goods thus increase, wants increase more rapidly, leaving the consumer a margin of unsatisfied wants higher than before. Were the relations between men and nature constant, a solution of the problems of value would clear up all the difficulties of production. Every change in value would mean some alteration in the pressure of wants or in the relations of men to nature. All articles would thus go up in value with social progress and fall together in decadent epochs. Market prices.

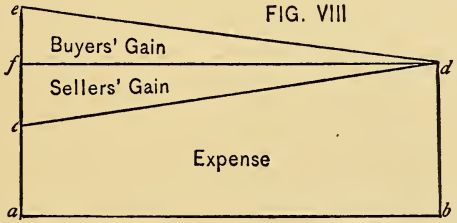
In contrast to these slow universal changes, problems of price are created by local disturbances affecting but a part of the industrial world. Some new obstacle to the increase of production is met in certain industries, and a larger relative share of the labor and capital must be moved into them. Improvements may also be made in other industries, thus liberating labor and capital. Each irregularity in the environment also causes the productive power of men to vary, and makes goods more or less abundant as the conjunction of these

accidental or temporary circumstances are more or less favorable. Fire, wind, flood, drought, and other natural and social phenomena affect the output of goods and alter from time to time their relative amounts.

Because of these variations in supply, market problems arise. Each producer having a deficit or a superfluity of goods seeks a market to make up the one or to get rid of the other. All goods come to a market of which producers have a greater supply than of other commodities, and they get from a market articles they produce in less quantities than they need. Market relations equate differences in the relative demand for goods, and thus determine price. The exchange of products depends upon two sets of estimates, — that of the buyer and that of the seller. Goods change hands many times before raw material is transformed into products fitted to supply consumers' needs. Each producer is a buyer of material from other producers and a seller of it to those who, between him and the consumer, work with the more finished products. He is thus a buyer in one set of relations and a seller in another. In the factory or on the farm he is the maker of particular goods. On the market, he, like every other producer, is a buyer and a seller; his gains are determined by the excess of the price of what he sells above that of what he bought. Unless the seller is a mere speculator, he is always a producer, for he has transformed the commodity and in some way increased its utility. This may mean production in the sense that the qualities and form of goods are altered; or it may mean their transportation to regions where they are rarer; or it may mean the holding of them

until a time when they will have increased utility to consumers. The seller may have thus created a place value, a time value, or a form value, but, in any case, he has created value, and is a producer. We should think of him, therefore, as a seller and neglect his particular function in production, the details of the process being ignored to permit a concentration of interest on the phenomena of price. The result of these exchanges between buyers and sellers is expressed in money. While consumers think of their utility, sellers think only of their money gains, which are determined by the movement in prices. Market prices are thus objective ratios of exchange existing between different commodities. The quantity of a good, and the different ratios of its exchange expressed in money, are the facts needed to determine its price under particular conditions. The causes fixing the price of a commodity can be illustrated by the following diagram.

FIG. VIII



Let the base line *ab* represent the quantity of the article, using the upright lines to represent its price and its expense. If but one increment of commodity is produced, the expense is equal to the line *ac*, which increases with a greater production until the quantity *ab* is produced, when the expense is *bd*. If, on the

other hand, but one increment of the commodity comes on the market, its price is *ae*. Additional quantities would lower the price to buyers until the quantity *ab* is produced, when the price falls to *bd*. On all the earlier increments there is a buyer's gain and a seller's gain in the exchange. At *bd* both these have disappeared, and no further exchange takes place. This then becomes the normal price until the conditions of production or consumption are altered.

For every commodity a diagram of this kind pictures the relations existing between sellers and buyers. Sellers have gains and expenses which are estimated in money. The gains are the difference between expense and the price of the article sold. Expense is the money price of that which is represented in terms of utility in Diagram III by the area *abcf*. The two diagrams represent the same things, but from different points of view. Consumers reckon in utility, sellers in money ; both have in mind the same commodities, and their estimates, though made in different terms, must in the end correspond.

To the seller also it is a matter of indifference whether expenses are costs or sacrifice to those with whom he is related as a producer. The seller pays the market price for the use of land, labor, and capital. The relative expense of each unit of commodity he brings on the market may be low, and yet he may have used the highest-priced land and labor. A large surplus to the landlords, capitalists, and laborers is consistent with large sellers' gains to the producer who uses their products or efforts. The cost of labor may be low and at the same time the relation of the laborers' costs to

their surplus may also be low. Or, to put the same fact in another way, the seller of a commodity may have low expenses at the same time that wages are high. Expense is not, therefore, the same as cost. A large expense fund may mean low costs.

The two diagrams (III and VIII), while similar in form, really represent a different group of facts and relations. The one represents the relations between producers and their environment. The better those relations, the larger the surplus and the lower the costs. The other represents the relations of buyers and sellers. This is at bottom a relation between the individual members of a society each striving to improve his relative position. On the market the loss of one person is the gain of another. When in contact with nature the advantage of each worker is an advantage to others.

For the sake of clearness of thought the terms utility, value, surplus, and cost are used when the simple relations of wants to effort are referred to. In market relations, however, producers are buyers or sellers and are interested only in prices. Though they do not appear actively, the consumer and producer are the cause of market relations. From the moment effort is exerted in production until the consumer gets the finished goods, all exchanges are on a market, and all prices are money prices. Ignore all these intermediate steps through which goods go on their way from their makers to those who finally enjoy them, and only a group of subjective relations remains, such as those pictured in Diagram III. Subjective values treat of the ultimate relations of producers to consumers; market

prices are concerned with the movement of goods between them. The phenomena of price indicate a movement of commodities. Utility appears at consumption.

The two points of view thus supplement each other, but must be kept distinct. The one view pictures the producer in contact with nature, absorbed in the pleasures and pains of production and consumption. The other view does not recognize the results of effort until goods are brought on a market ready to pass into the hands of another person, and are lost sight of again when withdrawn from the market by a person intending to use them. The first view presents a world like that of Crusoe, in which there is but one person, who is thus incapable of any but subjective relations. The second takes into account only a world of two or more persons, and then only of their mutual relations. The market world knows nothing of nature and the obstacles to the satisfaction of wants. A Crusoe world is equally oblivious to market relations.

It should be noticed that buyers' gain is not the same as the consumers' surplus, which is real while the former is only hypothetical. If a consumer uses two ounces of tea, the utility of the first ounce is greater than that of the second, and is a real utility for which he cannot be compelled to pay. For like reasons all of the consumers' surplus is a real fund of which the consumer cannot be deprived, except by conditions inducing him to cut down his use of the article. Buyers' gains do not represent real gain to individuals or to society, but show merely what would have been paid for an article under other conditions from those that exist. Assum-

ing that a thousand pounds of tea on a given market would sell for fifty cents a pound, and that two thousand pounds would sell for only forty cents a pound, it does not follow that the dealer would make ten cents a pound extra on the first thousand pounds if two thousand pounds were sold. He would sell all his tea at the same price and have the same gain on the second as on the first thousand pounds. The consumers, however, would have a real surplus on the first half of what they used. Buyers' gains represent only the effect of changes in supply on price, and form no part of the income of society.

Nor is it true that there is a close connection between the consumers' surplus and the buyers' gain. The latter could not be high in cases of deficient supply, unless the former was also high. The market price of an article cannot be forced above its utility to the consumer. But it does not follow from this that the price of a rare article can be forced up until the consumer has no surplus. Usually the consumer has a power of substitution through which the upward movement in price is checked long before his surplus is exhausted. The user of tea can also drink coffee or cocoa. The maximum price of tea, therefore, is fixed at the point where he will change over from tea to coffee or cocoa. Were the power of substitution complete, that is, could the consumer enjoy the three articles equally, there would be no buyers' gain, because the price of no one of the articles could be forced up without destroying its sale. So the buyers' gain measures not the consumers' surplus, but the incompleteness of his power of substitution. Under ordinary conditions the former is but a fraction

of the latter, and always follows different laws. Without confusing the fundamental relations that make the distinction of subjective and objective values important, the two cannot be thought of as one or as depending on the same conditions. Clearness of thought demands the use of distinct terms to express contrasted groups of ideas.

he limits price ovements.

If prices are sustained, some clearly defined obstacle to their fall exists; if they fall, some definite force must be in action. What are these two forces, the equilibrium of which fixes price, and how do they operate? If prices are kept up by the presence of costs they must fall until the value of goods does not exceed their cost of production. This lowest point is also normally the highest, because when producers compete with producers, the power of underselling is the test of industrial efficiency. Prices gradually fall until a further reduction is stopped by the cost of production becoming equal to the value of the goods produced. Competition of producers is thus the effective force reducing values, while costs are the obstacles that sustain them. The two forces acting together bring about an equilibrium that determines what consumers must pay for goods under normal conditions. If prices must gradually fall so long as progress reduces costs, the gains of consumers are the measure of progress, and to them come all the benefits of improved processes. If costs disappear through a complete adjustment of man to nature, values would also disappear. There would then be no obstacle to their downward movement. The goal of progress is thus the elimination of values and the creation of a social state in which all goods are free.

This doctrine is attractive, but I doubt if it can be maintained. In some way prices are held up, and consumers deprived of the benefits of better methods of production. It is also plain that enormous profits are made by certain producers, and that they divert to themselves the surplus that theoretically should go to consumers. Even without monopolizing corporations this tendency can be seen; and in the fields where they control production an actual rise in price often occurs. Either the motives of producers are incorrectly analyzed, or at present some abnormal tendency is dominant in industry. I think we must accept the first alternative. The condition of production and motives of producers are more normal than ever before, and can be better seen than during any earlier period. Instead of there being any likelihood of a return to the conditions of past production, new forces are steadily becoming more pronounced, the nature and effects of which admit of easy analysis and prediction.

The adherence to the old theory of value is not to be accounted for by its harmony with the facts of to-day, but rather by the incapacity of men to conceive any other adequate theory. It can be seen how costs stop the fall in value, and also how the competition of producers lowers prices; but it is not realized how other forces may bring about the same result. A new theory of prices must show a force that lowers and another that sustains them. Can such forces be found which, in scope of operations, shall be general and adequate, and at the same time in tendencies and results shall harmonize with the known facts about industry? A reply to these questions is possible, or at least can

be attempted with some hope of success, if the point of view is shifted from that of the producer to that of the consumer.

The old theory assumes a passive consumer wanting certain goods supplied by a given group of producers. If prices tend to fall through the action of producers, consumers gain nothing by activity; all the benefits of improved production come to them through no effort of their own. But if the motives of producers do not lead them to compete with one another by lowering prices, have the consumers any remedy? Yes, through the power of substitution. The consumer has innumerable wants, many of which have about the same intensity. Any upward movement in the price of a particular good is met by the shifting of the consumption to other goods supplying the same want, or by the development of new wants demanding other goods for their satisfaction. If the price of beef rises, the consumer may eat more mutton and pork, or he may forego meat entirely and eat more bread and vegetables. If cotton goods rise, more woollens are bought; if coal oil becomes costly, people use gas and electricity; if lumber becomes expensive, builders resort to brick and iron. The consumer finds substitutes to which he may turn when the producer seeks to take an advantage of him.

There is thus exerted on prices a steady downward pressure which producers cannot counteract. Even powerful trusts, finding their monopoly curtailed by the consumers' power of substitution, must be active in watching the action of consumers, or a large part of their trade and profits disappears. The force that

lowers prices lies in the consumer. It is his power of substitution that fixes the lower limit of price. If the consumer has no power of substitution, prices will be high no matter how low costs are, and they will move up until the power of substitution becomes effective. Instances of this were apparent, even at the time of the classical economists. The price of food was high in England for the century from 1770 to 1870. Consumers could not, under the prevailing conditions, secure a fitting substitute for wheat bread. Not until after 1870 did foreign commerce furnish substitutes for the traditional food in sufficient quantities to create an effective option. Then all prices of food fell and a lower normal level was secured through the increased power of substitution. With a multitude of new articles of food pouring into the English market, no one kind can be raised in price without a change of consumption to other foods.

It is this power that protects the consumer, and not the rivalry among producers. The price of meat is lowered, not by competition of producers, but by the cheapness of its substitutes. In so far as producers compete, it is a competition between the producers of different articles capable of supplying the same want. The consumers' power of choice makes this competition effective. There is no force operating entirely in one group of producers to bring this result to a passive consumer. Unless he is active, high prices are forced upon him by those upon whom he has become accustomed to depend.

In the consumer also lies the ultimate cause of rising prices. Wants are multiplying more rapidly than the

power to supply them, and each step in the advance of civilization increases the number of wants and the intensity of their satisfaction. The consumer is forced to leave unsatisfied the least urgent of his older wants in order to secure a more complete satisfaction of newer wants. With each of the older wants the marginal gratification is foregone, so that the income employed in purchasing the goods that satisfy them may be used in some new direction. The margin of consumption rises as a result, and thus the value of all goods is forced up. Against this change the consumer has no protection, for he must seek the greatest satisfaction, and this is obtained, in spite of the rise of values, in the gratification of the newer and intenser wants. Higher values form a necessary reduction in his welfare as a consumer, but this reduction is more than compensated for by the greater satisfaction of the new life. Total utilities increase and total values increase with them; the only reduction is in the consumer's surplus. To recover this loss the individual consumer must improve his position as a producer. This he can do by changing his production from the older articles giving less intense satisfaction to the newer and more urgently demanded goods. Capital is withdrawn from marginal production and employed in making goods giving more satisfaction. The return on capital and the rate of wages are thus increased, while the pressure of more urgent wants compels men to forego the gratification of the less intense wants at their former margin of consumption.

Active producers thus get a reward more than recouping them for the higher prices they pay as consumers.

The tendencies of active producers and active consumers harmonize. They both avoid the old marginal goods, and get as a result a higher reward and an intenser satisfaction. Only the sluggish producers continue selling the older articles at a lower price. In the end they also see the uselessness of this endeavor and adjust themselves to the new situation. The steady pressure on producers does not lead them to stick by old forms of production through a lowering of price. On the contrary, their dominant motives pull them away from competition into the production of new articles for which the demand is more urgent. This withdrawal of the more active producers into new forms of industry creates a new equilibrium.

Capital and labor can be put to better uses with every improvement in the variety, harmony and intensity of consumption. Direct competition at the margin of production is thus avoided. Although the total production of goods is increased, the reduced supply of each good causes values to rise, so that the position of all producers is improved. The dominant motives among producers lead to withdrawal from competition, and not to an increase in its intensity. There is, therefore, no enduring tendency forcing values down to costs. On the contrary, values move away from costs, and in a progressive society continue to rise in spite of the decline in costs. Downward movements in price come through an increased power of substitution affecting particular articles, and upward movements come through the increased intensity of particular wants. Every change in price depends on some alteration in the relative strength of these two forces. Costs lose their

power to fix prices with the increase of industrial efficiency.

The elements of market price.

Because of the confusion existing in the use of terms, the elements that enter into price have not been distinguished from those that influence value. To get simplicity and stability of conditions, the elements of price that are peculiar to markets have been eliminated as transient, leaving as the enduring elements only the subjective influences that determine value. Cost and sacrifice, therefore, seem to be the sole elements in normal price.

For an isolated producer this analysis is correct, but he would have no price problem. All his relations would be with some local situation. He would work so long as the costs and sacrifices of this direct contact with nature were less than the utility of the goods received in return. These costs and sacrifices determining subjective value help also to fix market price, but prices in a market have some elements that do not enter into a Crusoe world. As soon as exchanges permit the rise of social relations, the relative advantages of different locations and occupations have an influence on producers. Each worker must be paid for his labor the price that the best of his options to work will give. If he can work in Vermont or Iowa, if he can raise corn or wheat, if he can be a farmer or a mechanic, he has an option of place, product, or calling that will increase his wages above the return he would get as an isolated producer in some local situation.

Differential costs are also unknown to isolated producers. If two farms, one producing twenty bushels and the other twenty-five bushels to the acre, send their

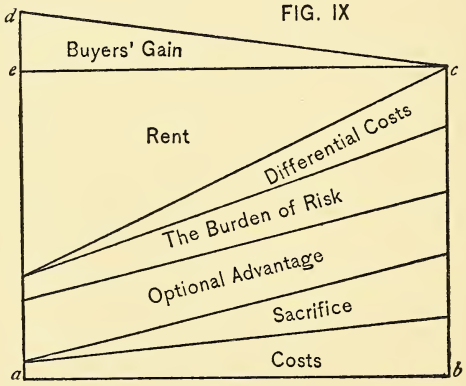
produce to the same market, the price of grain must be high enough to compensate the workman on the poorer land. No price element of this kind would enter if the two farmers were isolated producers. Their subjective equilibrium would then have no elements but cost and sacrifice. Differential cost and optional advantage are, therefore, elements in market price that are absent from the simple relations of a Crusoe world.

Risk is a third element that appears only in a market. The isolated producer is in direct contact with nature, and bases his calculations on conditions in view and under control. He deals with realities, and thus avoids the uncertainties of market relations. As soon as a market is established a multitude of uncertain elements enter the situation, against which the producers must guard themselves by price changes. They will demand an extra return equal to these disadvantages. The buyer in a market must, therefore, pay higher prices than if he were an isolated producer. Expressed in subjective terms this means that those going to a market have a higher margin of production and consumption than if they were isolated producers. If they consume more goods than they would living in isolation, it is due to their greater productive power, which enables them to pay more and yet have a greater quantity of goods. The supply line would cross the demand line at a higher point, but the demand line is so much raised by the added productivity of market relations that the new equilibrium involves a greater production of goods than before.

Cost and sacrifice are permanent elements running through the whole industrial world, but they affect

values only and never cause price movements. Differential cost, optional advantage and risk may be greater or less and may affect some producers more than others. They are the pure price elements and the cause of price variations. Their sum is the sum of possible price variations, and shows the amount of income that can be transferred by price movements. When pictured in a diagram the price of goods in a market would have the following elements.

FIG. IX



Speculation. Speculators differ from producers in that they return the goods they buy to the same market from which the goods were taken. A producer buys in one market and sells in another; one buying wool sells cloth, another buying grain sells flour, a third buying leather sells shoes. Producers not changing the form of goods at least change their place or alter their time relations. The shipper of goods from regions where they are abundant to places where they are rare is as much a producer as he who made them. So is he who sup-

plies the deficit of one season out of the abundance of another. But none of these useful offices is performed by the speculator. His income does not depend on the increase of goods or utilities. The amount changing hands through speculation exceeds the income of the speculators, but there is a net balance in their favor that comes in some way from the annual produce. No one lives and consumes except as he has a claim on the product of industry. And a share of this product comes to no one except by a movement in prices. To this law speculators are no exception. They must have some power over prices or take advantage of some price-making conditions.

The index of speculation is the presence of a margin between the buyers' and sellers' price on the same market. The cause of this margin is the instability of prices or some waste of productive forces. Wherever prices fluctuate the buying public pays for the goods it takes from a market at the upper limit of price, while those who sell on the market only receive the lower limit. If goods are in danger of burning or may be damaged in transit from one market to another; if dealers are dishonest or incompetent; if war, storm, or disaster can hinder the making or transfer of goods; if laws and taxation cannot be foreseen; if the lives of producers are in danger, or if the rightful enjoyment of income is made uncertain, a margin in prices is created and a flow of income started in which producers do not share. Stable prices reduce speculation, and turn in some other direction the flow of the income due to uncertainty. It matters not whether prices are high or low, steady prices cut in on the gains of speculators,

and with regular conditions the margin of price within each market disappears.

The flow of income due to instability of conditions makes changes in prices by depressing the value of future goods. Future goods have a less value, unit for unit, than present goods; and as they ripen into present goods, their value gradually increases until in the final stage the difference disappears. The increase of value as the transformation goes on is the cause of the income to which the name interest is given. If any risk or uncertainty exists in production, the value of future goods starts at a lower point than it would if only interest were paid. Suppose that the values of present and future goods must differ by twelve per cent to induce capitalists to invest. If there is risk, the difference in value between the two kinds of goods will be made greater. Instead of future goods starting at eighty-eight per cent of the value of the present goods produced, they would start at, say, eighty per cent of the price of the finished product. If the timber used in making a house is ten per cent less in value than the finished wood in it because of the rate of interest, it will start at eighty-five per cent of this final value if the danger from fire is five per cent of the value of the house. When the price of steel wares is uncertain, the material used in making them and the capital goods used up will have a lower value than if no risk existed. Any instability in the price of grain or meat does not raise the price to the consumer: it lowers the price to the farmer. All the effect of insecurity is shown in the lower value of future goods that finally ripen into present goods. This margin between raw products and finished goods is the

source of the fund from which speculators draw their income. It is an income that is not interest or wages, although it acts on prices in the same way as interest.

Many social institutions aim to eliminate this risk, or to prevent the individual producer from suffering uncertainty in his return. Insurance on life or against fire does not make fire or death less frequent. It merely prevents individuals from feeling too severely the burden of these evils. Where inflammable goods are used, the material out of which they are made starts at a lower value. The flow of income thus created is by insurance transferred from the individual owners of goods to the insurance company. A bank giving security to its depositors gets in return the income which otherwise would go to the possessors of money, but which would be of no importance to them because their losses through risks would offset this additional income.

A railroad company substituting stable high rates for fluctuating rates does not get the income of any individual using the road. So long as the rates are unstable, the prices at which future goods started in the process of ripening into present goods must be so low that the possible high rate of transportation can be paid. Stable high rates absorb the fund that would in any case be lost to the public by this lower value of future goods. So long as the rates remain unstable, certain individuals from time to time gain by the reduced cost of transportation. But this is for them a specific gain, in which the public does not share. These gains resemble rent and do not cause their possessors to bid higher for future goods and thus transfer the gain from them to the public. The initial efforts in production

by which future goods are created are paid no more highly if individuals gain through occasional lower rates than if the railroad company gets a larger sum through stable rates.

When the methods for making prices stable used by banks, insurance companies, railways, and industrial trusts are compared with those earlier in vogue, the difference, it is seen, does not consist in any change in the prices of goods upon which the public welfare depends. Neither interest nor wages are altered. These corporations get the margin between future and present goods from which speculators formerly derived their income. A part of the public was interested in this margin because production could not be carried on without speculation. Early producers trusted to the speculative gains connected with their industry more than to its regular returns. But this fact caused many ill-directed efforts through which much of the margin of speculation was wasted or destroyed. Where speculation is dominant, little or no net gains persist to improve society. Through the larger organizations of the present time, the flow of income caused by the margin of speculation is funded and becomes a part of the regular income of society. There is thus a social gain quite as marked as if some new invention had been introduced. A funded income saved by making prices stable is quite as effective as an invention in increasing the income available for steady enjoyment. Increased security is a net gain adding to the revenues of those who create it without taking anything from the public.

If, as has been shown, the downward movement in

prices is due, not to the competition of producers, but to the power of substitution possessed by consumers, if superior producers withdraw from competition by producing articles supplying more intense wants, if the monopoly powers of the various producers differ radically, the principle of free competition seems to be set aside. Nevertheless, the assumption of free competition is necessary, not to account for low prices, but to make sure that the ordinary motives for production are in operation. When producers are free, they place themselves at those points where their efforts create the largest product. Natural resources are thus made the best use of; each man finds his most suitable place in the field of production, and consumers are enabled to satisfy their most intense wants. The theory of competition expresses in the simplest way the assumption on which economists agree, and through which intricate discussions of the motives, differences, and peculiarities of men are avoided.

Competition through monopoly.

These facts associated with the theory of competition, however, are not disturbed by causes that fix the price level at some other point than the cost of production. The monopolist has motives similar to those of competing producers. He must use the best machinery, place his factories in the most favored locations, and see that his workmen are placed where their efforts are most effective. A railroad corporation, for example, has men employed in many different occupations. The tracks must be kept in order; the locomotives and cars must be repaired; switchmen and traffic agents must be employed; the trains must be properly manned; and the offices must be supplied with clerks

and managers. The company loses if the relative number of any of these groups of workers is too large or too small. Even if it be assumed that a profit is made on every act of these men, a wrong disposition of them would reduce the profit below the attainable. There is a marginal use of men in each group of workers — some employee who would be discharged if the force were reduced. This marginal use should be the same in each kind of work. The last track-hand should yield the same net profit to the company as the last switchman or the last clerk. If this is not true, there is a loss that could have been avoided. There is thus an effective competition, but it is not a competition of men for places or of producers for cheapness, but of position with position. The least productive positions are always on terms of equality, and there is a shifting of men from one to another as each in turn sinks below or rises above the marginal level. No matter how close the monopoly or how far above the lower limit prices are held, there is a competitive level to which the prices of marginal products tend and by which all other prices are measured. Every monopoly has some men employed in positions that yield the same net return as do the exposed industries with no monopoly. These marginal positions in all industries fix the competitive level of prices. If in any occupation prices fall below this level, workmen will be withdrawn and put to work in positions where the marginal level is higher. The most efficient positions are always occupied whether production is monopolized or not. If there is any difference, the right man is put in the right place, and the best loca-

tions for an industry are more often selected under monopoly than under free competition. The greater intelligence of the managers of monopolies insures these ends more fully than if each man sought a place for himself and relied on his individual efforts to find it. The errors in judgment are thus eliminated and a better guaranty furnished than if the forces are made effective for which free competition is sought. There is nothing arbitrary about monopoly or any natural high level of prices. They imply intenser activity and more normal conditions than any system of competition has thus far furnished.

In his relation to the consumer the monopolist must also promote the normal tendencies sought for under competition. He loses more than the consumer if the less intense instead of the more intense wants are satisfied. Consumers being under the influence of custom and habit are apt to hold to old forms of consumption long after it is possible to displace them by goods more suitable for the desired ends. Every more intense want that the monopolist arouses gives him a greater hold over his public by limiting their power of substitution. New wants demand particular goods only to be had from the monopoly; old wants may be supplied in many ways. The judgment of monopolists is superior both to the producer and to the consumer. He brings in no new tendency, but merely realizes more fully those ends sought for under free competition. Every one is brought more nearly to the normal line both of wants and activities. The regularity of life and the power of predicting events and results are thus increased, and all parts of society become more pro-

gressive than they would be if the conflicting motives of the less efficient but more numerous classes were allowed to dominate society. Monopoly is bad, but the confusion of ignorance is worse.

The use of each agent in production is also competed for just as it would be under free competition. Some of the articles made by each monopoly are sold at this price. When the price of wheat was high in England many varieties of farm produce had their value at the competitive level. Once in four years an English farmer could get a paying crop of wheat from his land. In the meantime root crops and other cheap foods were raised at an expense equalling their value. In all monopolies there are by-products giving only ordinary business returns, and these fix the level from which are measured the extraordinary profits obtained from the fully monopolized articles. This competitive level may be disguised under peculiar forms, but it is always present to guide the distribution of labor and the selection of the more advantageous situations in which labor may be employed. In periods of rising prices the strain of competition is as real as in periods of depression, and more effective, for the margin of wants and the margin of efficiency are then matched more carefully, and the normal equilibrium is more fully attained.

Differential advantage.

Differential advantage is based on the presence in each industry of marginal producers with high expenses. A fall in price is checked by their withdrawal. A rise in price is prevented by their increased activity. Prices are thus kept stable by marginal producers. No marked or enduring change can take place so long as a number of them are present and active. The em-

phasis of this doctrine is, at least partly, the result of the social views and prejudices of writers who as statesmen and reformers desire to cast imputation upon particular forms of income, or they may be desirous of defending other forms. When rent was proved to be a differential, it was shown to be an unearned income. As the landlords of England were in political control of the nation, their position could be more effectively attacked if they were viewed as drones consuming what they did not earn than if the political principles for which they stood were questioned. The thought of confiscating rent comes up inevitably as soon as rent is regarded as a differential, and Henry George's position is the logical outcome of its emphasis. It is not probable that George would have magnified its importance if he had not desired to get a moral support for confiscation.

Similar social influences lie back of the more recent development of the doctrine. But it is the defenders of the present social order who in recent times have extended the field and emphasized the importance of differential advantage. Senior claimed that interest was due to the pain of abstinence. When, however, immense sums of wealth were concentrated in the hands of a few persons, reformers asked, How does a millionaire suffer to the amount his income would indicate? The defence is now shifted by advancing the doctrine of differential advantage. Not the rich man, it is said, but the small capitalist, has a cost equal to his income, and if the rate of interest is lowered, he will be crushed out. The opponent of interest is thus put in the position of antagonizing the welfare of the

small capitalists. It is then assumed that the good of the small holder is that of the nation, and thus the income of the millionaire is justified by showing that it comes from general conditions upon which national progress depends. The similar justification can be found in the differential advantage of producers. The man who makes a fortune does so because his expenses are less than those of other producers, and prices must be high enough to pay their expenses. The public, therefore, suffer no loss from the rapid creation of wealth by favored producers. So long as the gains of the wealthy are price-produced and not price-producing, it is held that no one can rightly complain of their increased income.

So both conservatives and radicals find it to their interest to emphasize differential advantage, and by their joint influence its importance has been exaggerated beyond anything the facts warrant. Their reasoning has a solid basis only when the law of decreasing returns is in operation. Marginal expenses are no bar to a permanent fall in prices if the industry yields increasing returns in response to efficient applications of labor and capital. The high marginal expenses of producers under these conditions result from their individual peculiarities. When the pressure of downward prices comes, they must improve their methods of production or be permanently displaced. Falling prices force the more efficient producers to increase their output in order to get the same total profit with a smaller return on each unit of commodity. The market being thus supplied by better producers, the old marginal producers are permanently displaced.

If the price of some goods is raised, the consumer can force down the price of other goods, even though they have a high marginal expense. When the goods of the first class rise in price, they absorb more of the consumer's income and he is compelled to retrench in the use of the second class of goods, and the reduced demand for them lowers their price and forces out the marginal producers. When, then, the price of a given article falls because some other article or articles have risen in price, three causes operate to produce a lower permanent price: the marginal producers seek to improve their methods of production; the more efficient intermarginal producers seek to increase their production so as to restore their former profits by larger sales at the lower rate of profit; and at the same time the consumers check their use of it so as to have more of the goods which have gone up in price. A cheapening article tends to fall further, and an article rising in price has its rise strengthened by the forces making the other article fall in price.

The view that high marginal expenses check the downward movement of prices has been acquired in fields where the law of decreasing returns is in operation. Food was assumed to be the one natural monopoly, and was therefore the one commodity that rose in price. As opposed to it, all other articles were assumed to fall in price, and to be produced at a lower rate of profits. This reasoning fails as soon as two or more monopolies contest with each other for the monopoly fund. High marginal expenses will protect a monopoly against industries under free competition, but they will not protect one monopoly against another.

With the rise of a stronger monopoly each weaker monopoly loses some of its relative advantage, and the price of its articles goes down, no matter what its marginal expenses of production are. Some sugar may, for example, be refined at a high cost, and yet this fact will not prevent a fall in the price of sugar if its monopoly advantage is reduced. The marginal producers of steel, oil, coal, or whiskey are equally helpless against falling prices caused by stronger combinations. The monopoly fund can be shifted to other industries in spite of their exertions to protect themselves. So, too, farmers are helpless against the stronger monopolies that come between them and the consuming public. The price of wheat, corn, cotton, beef, and pork can be kept below its natural level through combinations among the buyers of farm produce without the marginal producers being able to protect themselves. They share in the common loss, and must produce below cost or improve their methods. Railroads also cut in on the price of farm produce without driving marginal land out of use. Land monopolists are safe enough when their only relations are with the public, but their power is quickly broken when they contend with stronger monopolists. There is no protection against the grinding force of a rising monopoly. Marginal expenses are as frail a barrier to a fall in price as any other. No obstacle can prevent a shifting of income with a change of monopoly power.

It was long assumed that the price of food was upheld by the high marginal cost of production on land. For over a century the price of food tended to rise, and thus it seemed that its high price was due to

marginal expenses. Since 1873, however, the theory has been put to the test. The price of food has fallen sharply, often to less than half its former amount, and yet little or no land has gone out of cultivation. Even if in a few cases land went out of use because of lower prices, the area of this land was too small to restrain the fall. When the downward pressure was felt, it was the good lands, not the poor, that set the price. The owners of farms formerly esteemed poor land were compelled to accept prices fixed by the productive power of better lands, or to change their use so as to avoid the stress of competition. Mere withdrawal of poorer lands was not enough to stop the downward movement of prices before the level set by the better land was reached. The lower limit of the price of food is fixed by the mass of better land, and not by the relatively little poorer land.

The same fact is shown in other industries when a downward tendency in price sets in. The marginal producers are powerless to stem the tide. Prices continue to fall until the best producers are so affected that they curtail their output. A new level of price is thus created which holds until the general conditions of the trade improve. Some of the producers avoid competition by changing the nature of their industry, others adopt the methods of their more successful rivals, while still others strive for new inventions, or seek to utilize more fully the peculiar advantages of their locality. In these and other ways the lower level of price tends to become permanent, or at least a higher level is not restored until the old marginal producers are out of the way. Few indeed

are the producers having protection against other makers of the same goods. Price fluctuations are frequent and severe, and will remain so, unless a new cause of stability comes from the consumer.

In primitive times consumers were compelled to satisfy each want in one way. Food meant rice, wheat, beef, or potatoes; clothing was made of wool, cotton, or leather, and other wants were satisfied in an equally narrow manner by one group of producers. An increasing variety in consumption breaks up this power of particular commodities and particular producers over consumers. Where wants can be satisfied in a number of ways, consumers change from one commodity to others if its relative price rises. Instead of thinking in terms of concrete goods, they have for each want a unit of supply made up of the various articles that satisfy it. In the unit of food needed for a dinner, twenty different articles may be possible ingredients; many varieties of clothing will keep a man warm, and he can be comfortable in many different styles of houses and in many different localities.

ice-determining units supply.

Among the various articles supplying a given want, some one is price-determining, the others having their price fixed by it. The more costly portion of the supply has its price fixed by conditions of the industry that furnishes it. If this price is stable, the prices of all the units of supply are equally stable. The industries that produce them are protected so long as the industry having the price-determining unit of supply withstands the pressure of price fluctuations. It alone is exposed to the vicissitudes of the market. Industries are, therefore, protected from competition or exposed

to it, according as their products are price-determined or price-determining. There can be only one exposed industry among the group of industries that satisfy in various ways any given want; all the other industries have prices higher than the natural price, and have stable conditions of production so long as this exposed industry successfully withstands the pressure of competition.

Each good has a definite expense of production which is the same for all its units, and yet it is one of a series of goods supplying a single want. There may thus be an extra profit on each of its units, because some other commodity supplying this want is the price-determining element of the supply. At the same time, if all these commodities are viewed abstractly as units of supply for a given want, they form a differential with one price-determining unit. Each kind of good has the same expense of production and yields an equal profit on all its parts, and yet its price has stable conditions because it is a part of an abstract unit of supply with one price-determining unit. The gain on each unit is thus marginal, if it is compared with other units of the same kind, but differential if it is compared with all the various units for supplying this want. Rent and profit are thus one fund viewed in different ways. On the price-determining commodities with less stability of price, the income is profits, while the same income becomes rent if the price is stable because price-determined. There may be a marginal rent if the income from a single commodity is considered by itself, but it becomes a differential rent if all the units of supply for a given want are taken into account. Rent

is profits made stable through its relation to the smaller profits on some competing commodity. Profits, on the other hand, are rent made unstable through the absence of a dearer price-determining unit of supply. These conditions create a permanent monopoly fund, the causes of which must be further analyzed.

e mo-
poly fund.

Prices are lowered by the consumer's power of substitution and are raised by the pressure of new wants. Of the total utility of his goods the consumer must hand over the equivalent for their value to the producer. This value is determined by the margin of consumption through which the marginal utility of each good is fixed. The difference between the total value of the goods consumed and the total utility is the only utility the consumers get free. The total value of goods is the share going to producers. One part of this is a compensation for their costs, and the other is the producer's surplus.

To make plain its origin the producer's surplus must be divided into two parts. Some of it is due to fixed charges that under existing conditions cannot be altered. Another part has its distribution changed or partially changed by price movements. The part of which the distribution cannot be altered without some radical modification in the structure of society is the *fixed income* of the different producers. The other part, transferred from one group of producers to others by changes in prices, is the *free income*. It goes to the producers, not because they have productive power, but because they control prices. Some of the producer's surplus represents the advantages resulting from differential costs. The better land, the more efficient em-

ployers, and the superior workmen get a differential gain that cannot be taken from them by competition. Payments for interest represent a fixed charge not to be reduced until the motives for saving are increased. The standard of life also sets a definite limit to the downward movement of prices long before the cost line is reached. Laborers thus share in the surplus along with capitalists and the recipients of differential gains. These elements change from time to time, but in a given period they interpose a definite barrier to downward tendencies of prices. The rise and fall of prices can cause the free income to change hands, but it can do no more. A reaction toward higher prices sets in as soon as all the fixed charges are not met.

These fixed charges are compensations for the immediate pains of producers and for the use of the enduring elements in production. Land will not be fully used, capital will not be replaced, nor will the number and energy of laborers be kept up unless the customary rewards are forthcoming. The compensation for the use of the enduring agents is the result of long-standing forces that cannot be altered by the pressure of falling prices, but which make barriers as stable as the structure of society, and can be removed only in a decadent civilization. In a society with an increasing power of production there is no danger of their being reduced in amount.

While these fixed charges will be readily recognized, the existence of free income is more open to dispute. Yet if one perceives that prices are always subject to change, he must also see that there is a fund capable of being transferred without any cutting into the fixed

charges. This movable income is due to the fact that the normal fixed charges have not grown as rapidly as the fund of value they tend to absorb. The increased intensity of wants causes values to rise. The standard of life and other social causes increasing the expenses of production may not rise proportionally. The result is a fund with no incontestable claimant. An instability results which shifts the free income from one group of producers to others having stronger temporary claims.

This instability can be plainly seen in recent price movements. The price of food has steadily declined, and with it rents have fallen. None of the gains of the increased production have gone to the agricultural landlords. The rate of interest has also fallen, causing a reduction of the capitalist's share in each commodity, or in the results of each day's work. The rate of wages has been kept down by the constant accession of laborers from outside regions. There thus arises a condition where none of the productive agents whose use creates the fixed charges in industry can increase its return enough to absorb the whole of the product. The growth of fixed charges lags behind the growth of value. The lower limit to prices set by the amount of fixed charges no longer equals the maximum limit to prices fixed by the pressure of consumers' wants. Prices, therefore, can be altered, creating a free income to be absorbed by those having the power to control them. This free income is a monopoly fund whose distribution is fixed when certain producers have enduring causes giving them an advantage. In the following diagram the total value of all goods on the market is

represented by the area *abce*, of which the area *abgh* represents the fixed charges that cannot be reached by price movements. One part is cost which must go to those who endure them; the other part cannot have its destination altered so long as the structure of society remains as it is. This fixed income includes the minimum wages of each class, the interest fund and a part of rent. The downward movement in price must cease so soon as the price of a commodity will no more than meet them.

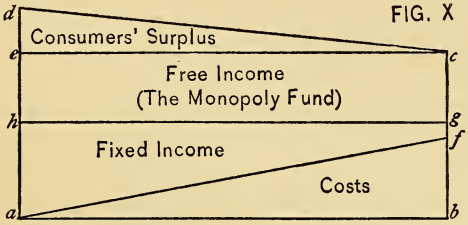


FIG. X

There is a fundamental difference between the fixed and free income, in that one has subjective causes and belongs to the consumer's world, while the other is objective and belongs to the realm of producers. In other words, it is the intensity of the consumer's wants and his power of substitution that determine the amount of the fixed income. The outward flow of energy and the return flow of goods necessary to keep up this energy is common to all members of the society. It goes to men not because they are producers but because they have certain qualities as consumers. Fixed income cannot be divided into funds and a law discovered for the distribution of each fund unless consumers are divided into classes through race differences. And in this case the funds have social causes, and their

determination is not a part of the present discussion. The fixed income goes to men in a homogeneous society, not because they are producers, but because they have certain qualities and standards as consumers. It is the minimum amount needed to make consumers active under existing conditions.

Over the free income, however, the consumer has no control, and here the action of producers is supreme. For its distribution the law is the same as that controlling the price movements. Back of this distribution of the free income lies no force but the monopoly power of the different groups of producers. Prices are altered by limitations of supply, and these are due to the different rates of increase of the various articles brought on the market. The monopoly power of each group of producers is thus inverse to the rate of increase of its products ; the slower the rate, the greater is the monopoly power. There are as many independent factors in distribution as there are independent units of supply, and to get these units we must return to the consumer. If he had a complete power of substitution, that is, if several commodities could supply each want or if several groups of producers could supply all his wants, there would be no monopoly. If he had no power of substitution, there being only one commodity that could supply each want, each commodity would be an independent monopoly. The partial power of substitution existing at present throws into one group commodities that can be more or less completely substituted for each other. A group of this kind has a price-determining unit of supply through which all the other units of supply have their prices fixed.

There are, then, as many independent monopolies as there are price-determining units of supply, and each of them is a factor in the distribution of the free income. Neither laborers nor capitalists nor landlords have common interests in this distribution. Each group of laborers, capitalists, and landlords has its income fixed by the monopoly power of the particular commodities this group produces. Wages, profits, and rent may therefore be going up in one group and down in another, with no relief to the injured producers so long as the consumer's power of substitution is incomplete. Articles for which there are few substitutes are easy to monopolize. Coal oil to-day furnishes an example of a strict monopoly because many consumers are so situated that they can use no other light. A century ago, wheat in England had the position that coal oil now holds. Bread being the standard of life, a short supply of wheat forced up the price of all food products and associated the price of wheat with the land problem. But land in this general sense was a monopoly only because the English people had so few substitutes for wheat. The connection between the price of wheat and the land problem was therefore only temporary. Now the many different substitutes make the interests of food producers divergent. Different regions, and often different groups of farmers in the same region, compete with one another. A general rise of land prices is no longer probable, although its price in particular regions may go up. Land is broken up between the various monopoly units in the same way that laborers and employers are. Independent units of supply thus lie at the basis of the distribution of the free income.

The functional distribution that sought to fix gross wages, profits, and interests loses its importance where price movements permit producers to create monopolies. Each group of producers having one price-determining unit of supply obtains a certain gross income fixed by the strength of its monopoly.

It is again the monopoly power of the various subgroups that determines how much each of them gets of the gross income coming to the whole group. The laborers receive more or less of it as their power of substitution enables them to withdraw to better-paid occupations, or the lack of this power prevents outside laborers from competing with them. The capitalists, landlords, and employers have their shares fixed also by their power of substitution, each gaining as their own options increase or those of the other sharers decrease. There is thus within each group a functional distribution fixing the amount of wages, profits, and rents of those within it, but no general law determining the size of these funds. Gross wages are only the sum of the particular wage funds created by the independent units of supply. Two isolated groups of laborers with different powers of substitution have less in common as income getters than they have with their employers and other associates within their own group. Their interests as consumers and as participants in the fixed income are general, but not as contestants for the monopoly fund.

The burden of monopoly.

From the foregoing it will be seen that monopoly is a problem not of values but of prices; it forces up the prices of particular commodities and lowers those of others. There would be no gain to monopolists if the

ratio of exchange were not so altered that given quantities of their articles exchanged for greater quantities of other articles. Monopoly is thus a struggle between producers wrought out by price movements. The gain of one group is a loss to some of the others. To enlarge Ricardo's dictum about rent, monopoly creates nothing: it is a transfer, not an increase of wealth. Nor does it affect consumers except when they consume more than the normal amount of the monopolized articles, and then there is a corresponding gain to consumers using less than ordinary of these articles. A dollar will buy as much after the monopoly is formed as before, but a part of the public will have fewer dollars. The fall in price of the unmonopolized articles will reduce the incomes of some of the producers, leaving them less money to spend. There is thus a shifting of income, but no change in consumer's values estimated in dollars. The total value of all the goods consumed will not change unless the wants of consumers are made more intense or less intense. Monopoly has no influence on these subjective states of consumers. While it tells who will get goods by having the money to buy them, it gives no indication of the use to which these goods will be put. Prices settle struggle, values measure adjustment. Monopoly belongs wholly to the realm of struggle; it has nothing to do with adjustment.

Since monopoly is a phenomenon of price, its influence can be traced in price movements. For every upward movement in price there must be in some other industry a corresponding fall in price. It is possible, therefore, to connect the two and bring out their causal

relations. The classical illustration of this connection is to be found in the relation of the increased price of food and the fall in the rate of profits. We are told profits tend to a minimum. This means that through the increased use of poor land to feed a growing population its price rose, and with the rise the rate of profits fell. Food was higher, commodities were lower in price, and through the changed relation rents went up and profits fell. Here was plainly a transfer of income without an increase of wealth.

So long as the only great monopoly was that of land, the effect of monopoly showed itself mainly in the changed relation of rent and profits. Many theories were developed showing that rent must rise and profits or wages must fall as population increased. The doctrines of Henry George are an example of the influence of these theories on those who believe them to be permanent tendencies of an advancing civilization. But the recent fall in the price of food has proved these inductions to be unwarranted. The high price of food is no longer the cause of low profits. Other monopolies than that of food have come in to replace the traditional monopoly of landlords; and their influence on prices needs the same elucidation that earlier economists gave to rent.

In the case of a food monopoly the influence on prices is easily traced. Food articles are distinct from the freely produced commodities upon which profits were made. Even the unintelligent public could recognize the change in prices. The influence of monopoly is now quite as marked, but it shows itself in less simple forms. Production is more complicated, and goods pass

through many more hands before they reach the consumer. Monopoly changes the relation between those producers whose efforts are needed to put a single product in its final form. In making canned fruits the price of tin for the cans, of sugar for sweetening, of the land on which the fruit is raised, and of the machinery and capital of the maker, all enter with the price of labor as factors in the final price of goods. If the consumer's power of substitution prevents a rise in the price of canned fruit, a rise in the price of tin or sugar must be accompanied by a fall in wages, in the producer's profits, or in the rent of land. There will always be a struggle between these five elements, the stronger for the moment gaining at the expense of the weaker.

In the production of machinery also the same struggle is apparent. Some parts of the machine may be made of brass, others of fine steel, of nickel, of cast iron, or of wood. The proceeds from the sale of the finished product must be divided into these parts, and those having the greater monopoly power will gain an advantage. Many articles are more complex in their production, and about them the struggle for monopoly is even more marked. The greater the complexity of the goods, the sharper is the contest among those who must share in the final proceeds of the joint industry.

A clear example of these tendencies is furnished by railroads. They must buy a thousand different articles, all of which are used up in creating the large service the corporation performs for the public. When some of these rise in price others must go down, unless in the meantime the monopoly power of the railroad over

rates has increased. Usually the corporation must make economies in one direction to compensate for losses in another. It stands opposed to a thousand independent producers, each striving to increase his monopoly power but each losing to the degree that others succeed. The rise in the price of steel rails, tin, copper, leather, wool, or machinery secures to particular producers an advantage which some other group of producers must pay for in the lowered prices of their commodities. The corporation is merely an adjuster of the effects of their struggle. It cannot increase or decrease the total amount of its expenditures except as its relation to the public is altered, and this relation is determined by considerations with which the struggle between those from whom it buys has little to do.

The growth of one monopoly is always at the expense of other monopolies, never at the expense of the public. But this is not to be interpreted as meaning that those who regard themselves as a part of the public never lose by the growth of monopoly power in some new direction. Farmers, for example, get their incomes partly from the land and partly from their labor. As owners of the land they are monopolists, and may lose as landlords in the reduction of the price of land. The falling price in food has been a cause of the growth of monopoly power in other directions. Had the price of food remained high, the industrial trusts would have met obstacles to the rise in their prices that could not have been overcome, or at least not as fully as they have been. Food has a first claim on income; a shortage in its supply affects immediately the prices that trusts may set for their products.

A part of the losses following the recent development of trusts has fallen on the farmers, because the falling price of food has affected their monopoly as landlords. Another great loss has been felt by the capitalists through the fall of interest. A large fund was in these ways set loose, in the absorption of which other monopolies grew. They will grow still further, when other special monopolies lose their present power. The railroads for a long time had a monopoly power at the expense of farmers. The present valuation of railroad securities could not have been reached if the falling price of food had not enabled them to raise their rates relatively to other prices. The public had no option but to use the railroads and to send their goods to European markets. At the present time, however, the power of substitution of shippers is steadily increasing. Southern markets are opening up, and new water routes will soon be able, by cutting under railroad rates, to reduce them to a minimum. The monopoly power of railroads seems, therefore, to have reached its maximum. Between the industrial trusts and the railroads, the former have an increasing advantage. The railroads cannot raise rates in face of an increasing power of substitution on the part of shippers. This means declining values for railroad securities, especially in places where the gross traffic is likely to fall off because of a change of the direction of commerce.

Thus monopoly will struggle with monopoly. New ones will displace the old, and probably with an increasing rapidity. The monopoly of agricultural landlords continued over a century; but it fell at last, and so will

other monopolies, of which much is heard. A substitute will be found for coal oil as one was found for wheat. The place where the consumer's power of substitution fails is constantly shifting, and as it shifts, new monopolies will spring up and old ones cease to exist. The monopoly fund at a given time is definite. More than this monopolists cannot get; less than this the public will not lose until the standard of life and social institutions are so changed as to permit the public to absorb a larger part of the gross income of society.

The burden of monopoly thus falls on other monopolists. Only those who have had some special advantage lose through others securing a still greater advantage. It is not a matter of indifference who has superior advantages. Some monopolies are more diffused than others. The rent of land held by small farmers and the gains of trades-unions improve the condition of large numbers of people, and yet these gains are not different in kind from those of other monopolies. Monopoly power may be rightly used or wrongly used, but it is still monopoly power, and is a pressure that takes from others who have an advantage, but not so great an advantage as those who profit by it. The public gains not through modifications in the process of struggle, but in that of adjustment to nature. The more perfect the adjustment, the less are the net proceeds to be distributed by struggle.

CHAPTER III

Investments

Production is the act of putting things in motion. There is no productive process that is not resolvable into labor; and viewed from the standpoint of time, nothing is seen but a series of efforts. Go into any factory, watch any transformation of goods or examine into their movement from market to market, and nothing else appears. Labor is the expenditure of energy, resulting in the movement or the transformation of goods. The man who writes a check or sends a telegram labors as well as he who follows a plough or tends a loom. His energy puts objects in motion, and thus helps to create utility and value. It is this expenditure of energy in all its forms that constitutes labor and makes up the whole visible process of production. Pain is an incident to production, not its measure or cause. Were all activity pleasurable, it would still be work when it moved or transformed goods so as to increase their utility and value.

Surplus value.

All production being work and nothing being production but work, it would be natural to expect that work and value should correspond. Ten units of labor would then create ten units of value. Many theories of production are based on the fairness of this relation. If total values exceed the total amount of work, the laborer, it is claimed, is exploited and can demand

changes to remedy the evil. Surplus value to many is the one evil that crushes the laboring class.

It is usually said in explanation of the capitalist's activity that he furnishes the tools, building, and material which the workman transforms into finished products, and for the use of these goods he receives a return in the form of interest. This explanation is only partial. The tools, building, and material were the result of activity, and can be resolved back into the labor by which they were created. The end of labor is goods to consume. The means of getting them is the expenditure of energy. Buildings, tools, and material are but partially made consumption goods into which they are gradually being transformed. Ploughs, harvesters, grist mills, and ovens are but partially made bread. There are only two clearly defined standpoints from which to view production — either in terms of energy expended or utilities produced. Capital must be viewed as an aid to the consumer in getting utility, or to the producer in expending energy. There is no third category.

From the standpoint of the consumer, everything is goods. Consumption goods are those capable of giving direct satisfaction. Production goods do not create this satisfaction. They are of use in further production, or are partially made consumption goods. Everything gets its value from the final consumption good into which it is transformed. The value of production goods cannot exceed the utility of the consumption goods made from them. They do, however, fall short of this value by the amount of the interest fund, and thus surplus value appears. These production goods are often

called future goods because they are aids to future enjoyment. Consumption goods are present goods because they yield immediate pleasure. Future pleasures are not so highly esteemed, unit for unit, as present pleasures, and hence future and present goods will not exchange on a par. The holder of future goods makes a gain through the steady transformation of his goods into present goods. He is always exchanging overvalued present goods for undervalued future goods. The sum of these gains is the interest fund. It is a phenomenon of exchange, not of production. The use of capital demands no new form of labor; it augments the utility of what is made.

If it is desired to view capital from the standpoint of production, it is necessary to think of it in terms of labor and expenditure of energy. The use of capital means the employment of laborers in a series, and this makes what has been called roundabout production. The material to be transformed into goods passes through the hands of many persons, each of whom does something that helps the goods to attain their final form. This series of laborers must all be paid out of the final product, and some rule for its distribution must be agreed upon. If they all share alike, every one would want to do the last day's work by which the article assumes its final form. No one is willing to plough the land, wait for a year, and then share equally with the man who baked a loaf of bread made from the produce of this land. For each unit of labor expended on the land, a larger share of the bread must be given than for units of work expended on the bread. For each day's work, the ploughmen would get, say, one hundred units

of the final product, the harvester of the grain, ninety-nine units, the miller, ninety-eight units, and the baker ninety-seven units. In order that this may be done, the value of the bread must be greater than the value of the labor at the time it was performed. If the present value of a day's labor is ninety-seven cents, bread made by four days' labor (one each of the ploughman, harvester, miller, and baker) would have when made a value of three hundred ninety-four cents. The value of the labor when exerted is three hundred eighty-eight cents. There is thus a surplus value of six cents above the price of the labor. In all cases of serial labor a similar surplus appears. Finished goods are esteemed more highly than the labor by which they are made.

To say that future goods do not exchange on even terms with present goods is the same as saying that the first laborer in a series receives more of the final product than the last laborer gets for the same effort. Either view shows the presence of surplus value, and raises the question as to its cause. The explanation is the theory of interest.

But in the explanation the causes that are a part of existing conditions must be separated from those due to heredity. Böhm-Bawerk has advanced a theory of interest that throws the emphasis on race differences. He enumerates three causes for the underestimation of future goods:[1] the incompleteness of the imagination men form of their future wants, defects of will by which wrong choices are made, and the shortness and uncertainty of life. So long as these defects exist, society is divided into two parts. Those with a

[1] The Positive Theory of Capital, p. 264.

favorable heredity esteem future goods more highly than those less developed psychically. This second class produce future goods in too large quantities, and hence depress their value below that of present goods. Defective heredity thus gives a monopoly value to present goods of which advantage can be taken by those whose mental traits or social position favor the accumulation of wealth. Where these race differences exist, one part of society becomes capitalists, and the other remains mere workers. There is a flow of income from the latter to the former, which is the interest fund viewed as a race problem. Should the race be unified, and these defects be removed through mental development, interest would vanish unless it has a cause in existing conditions. Interest paying is a burden to those whose way to better methods of production is blocked by their mental defects and social position. As an economic problem, however, it is a part of a scheme of coöperation to which equals resort. The payer of interest has a compensation which recoups him for the loss.

The cause of interest.

The increased quantity of any article gives decreasing pleasure in its use. From this the inference is naturally drawn that the possession of greater quantities of goods leads to a reduction in their value. The marginal utility, it is said, falls off with the increase of supply, and the value must sink with it. This result would follow if it were not for the increased variety of consumption. A greater total quantity of goods may be coincident with greater values, if the number of the goods used increases more rapidly than the quantity. In this case the marginal utility will be higher, less

L. of C.

being used of each article. A rising margin of consumption is a sure index of progress, and shows that the variety of wants is growing more rapidly than the total means of satisfying them.

This effect of an expanding consumption is reënforced by the enlargement of the complements of goods necessary for their full enjoyment. Some articles giving little pleasure by themselves are intensely enjoyable when they come as a supplement to other articles. Cake, though wanted by no one as a chief article of diet, gives great pleasure as a dessert. Oil and vinegar bring into demand many a vegetable otherwise inedible. Wine often makes all the difference between a good and a bad dinner, and a good cigar at the end may atone for the sins of the cook. Beautiful dishes or flowers increase the enjoyment of the banquet table. Furniture, besides being necessary, may add to the charm of a house. These examples of complementary goods are not isolated exceptions. Not even the simplest pleasure is free from them.

This principle modifies the conclusion naturally made about the fall of marginal utility with the increase of goods. The civilized man uses more goods than his primitive ancestor, but he uses a smaller amount to satisfy any particular want, or if he uses a like or larger amount the good satisfies other wants. Men thus value additional quantities of goods more highly than they value the goods they have. If 50 units of goods consumed daily produce a given quantity of pleasure, and 55 units enable the user to put his goods into better complements, he values the additional 5 units at a higher rate than those he possesses. He will impute

to them all the difference between the pleasure of the 50 units in their present combination and the 55 units in their better complementary relation.

The advantage of increased variety in consumption is shown in the following table, where *a*, *b*, *c*, etc., represent the different articles in use.

	Units of commodity		Units of utility
$14a + 10b + 8c =$	32	=	32
$12a + 9b + 7c + 5d =$	33	=	35
$11a + 8b + 6c + 4d + 5e =$	34	=	38
$10a + 7b + 5c + 3d + 4e + 6f =$	35	=	41

In the first case 32 increments of commodity are assumed to produce 32 units of utility; in the second 33 units of commodity produce 35 units of utility; in the third 34 units of commodity produce 38 units of utility, and in the fourth 35 units of commodity produce 41 units of utility. In each of these cases an additional increment of goods allows the consumer so to rearrange his consumption that 3 units of utility are added to his pleasure. He would, therefore, be willing to pay three times as much for his last unit as he pays for the other units if they are to be consumed without it. If two men, each having 32 increments of commodity, meet for the exchange of goods, each of them would be willing to give the other the equivalent of three units of pleasure to get from him the additional increment needed to enlarge his complement of goods so that his consumption would come under the second case. The same motives would prompt a similar bid if two men in any of the other classes met to exchange goods. The man with the larger consumption would have a better complement of goods, and could afford to bid three units of utility to

be changed from one class to another. There is always a pressure on a man to consume more than his share or his income so as to enjoy the effect of the enlargement of his complementary consumption. Each increase in the amount of his goods gives a still greater increase in the amount of his pleasure. Consumers want to use more than they have, and make higher bids per unit of goods to get them. The greater the quantity of the goods the greater is their value per unit. A surplus value is thus created by changes from a smaller consumption of units of goods to a larger and hence a more harmonious consumption of these units. This surplus value is the source of interest.

The cause of interest was present before capital came into use. In celebrating a wedding, a birth, or other social events, the additional goods needed for this end had a higher utility to a primitive man than those of everyday use. New complements were formed that perhaps more than doubled the value of each unit of goods necessary to complete them. He was willing, therefore, to borrow the necessary funds of his neighbors and to pay a high rate of interest for them. In this he was justified because of the added utility of the enlarged complements. The pleasure of these feast-days more than made up for the privations that followed when the debt was paid.

The extra expenses of burial rites and of charms to drive away sickness were even more urgent, and for these ends borrowing was freely resorted to. And these expenses were also legitimate. The greatest total utility is obtained by a primitive man from irregular expenditures, and not from the steady outlays approved

by civilized men. If the desires of men vary in intensity, an unevenness of outlay is a rational use of income. There are thus even in the earliest societies motives that lead to the payment of interest. Every social event enlarged the complement of goods and created a surplus.

We have in such societies a surplus to consumers, making it advantageous for them to pay interest. For the individual interest-paying was justifiable, but not from the standpoint of the public. There was a loss in goods in each feast or rite celebrated and no corresponding gain in goods. The community was made poorer even if the individual was made happier. Early governments and religions ruled against interest-paying, and thus protected the public against the evil results following a reduction in the quantity of goods. Interest-paying becomes especially bad in a composite community where a minority do not feel the need of following the social customs, demanding large expenditures of goods. In this case a class arises that lend to others, but never want like favors. They become a creditor class who constantly exact a tribute from the public, and thus cut down the average consumption of citizens by the amount of the interest paid to the outside class. The interest fund thus becomes a public burden without any compensation. The opposition to money lenders is natural so long as there is no fund from which to pay interest. To bargain away future goods for passing utilities only adds to misery. And yet the tendency to do this is strong in every primitive man. Interest-paying is thus a universal tendency, but a bad one socially, where no fund of goods is at hand out of which the obligation can be met. The cause of

interest is the extra pleasure added by the last increment of each complement of goods. The man who pays interest always has an extra enjoyment out of which to pay it. The value of goods in complements is greater than the value of individual goods composing them. These complements grow in size with each increase in the quantity of goods. An increase of goods not only supplies more wants; it supplies intenser wants, and puts the consumers under pressure to consume more than their income. The struggle for additional goods causes them to bid higher for these goods, and thus the fund of extra pleasure due to the increased size of the complements is transferred to producers. The latter get what the conditions of increased consumption create. The use of capital goods is not the cause of interest; it only creates the fund out of which interest is paid, and thus makes the natural promptings of the consumer harmonize with the good of the public.

Future goods, unit for unit, do not have the value of present goods. The converse of this proposition is equally true though often overlooked. Where present goods are overestimated, the labor employed in making future goods is raised in value if its value is reckoned in future goods; or to put this fact in another way, when present goods are raised in value, the makers of future goods get more for their services, measured in the articles they make. The demand for goods creates a demand for the labor that makes them. The lower value of future goods is due to higher value of labor. A man cannot enjoy goods and work at the same time. If the pleasure of enjoyment is increased, the wages of labor measured in what is made must also go up.

This modification of values, due to an increase of pleasure, often happens where no future production is involved. On a holiday people are especially desirous of enjoying themselves. If a man works to supply these intense wants, he must be paid a higher rate of wages. If the pleasure of the day is double that of ordinary days, the wages of those who work must be doubled. These men must take their enjoyment on the ordinary days that follow, and must therefore be able to buy double the quantity of goods to get the same net pleasure that other people had on the holiday. This exchange is the same in essence as interest. A higher value of present goods demands as an equivalent a higher value of the labor engaged in making future goods. If a man gives up a part of what he might enjoy to-day, to produce for the morrow, he must be paid more in the goods of the morrow than if he did not forego present consumption. If 100 units of present goods is valued at 106 units, the maker of future goods who formerly received 100 units of these goods per day must now receive 106 units. No production of future goods can now be profitably carried on unless the return is sufficient to pay the workman 106 units of goods a day. There must be an increased productivity of labor in future goods to correspond to the increased value of present goods. The use of capital goods permits this increased productivity. There is now a fund of goods out of which the increased wage can be paid. The value of future goods does not sink as low as it would if this increased wage (measured in future goods) was not required.

If present goods are valued six per cent above future

goods, wages measured in future goods are also raised to six per cent. There is thus an objective fund in future goods equal in size with the subjective fund of utility created by the extra inducement to consume. The laborer has six per cent more goods if he takes future goods, and he has the same amount if he takes present goods. The extra goods that make up the objective interest fund do not come from his wages, but from the increased productivity of capital goods. Where interest is paid, the marginal productivity of society is raised by a like amount. The interest fund is therefore a net gain to society. No one is burdened by its payment.

In Diagram XI the base line *ab* shows the quantity of goods normally consumed, whose utility equals the area *abcd*, the margin of consumption equals the line *bc*, and the expense of production is measured by the distances between the lines *ab* and *kc*. If a new group of complements could be formed by the addition of goods to the amount of *bf*, the marginal utility would be increased to *ef*, and the total value of all the goods consumed would be raised from the area *abch* to *afeg*. Goods to the amount of *bf* would thus increase values by the amount of the areas *bcef* and *cegh*. The interest fund in this case is the added value per unit of goods that is created by the new conditions. It would be, if measured subjectively, equal to the area *ghme*. The ratio of *ah* to *hg* would be the rate of interest.

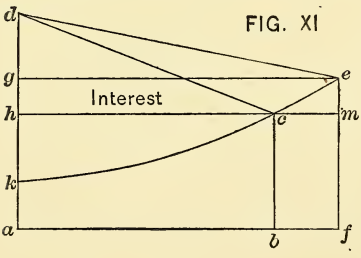


FIG. XI

Diagram XII measures the same fund objectively. The line *ab* equals the amount produced measured in units of time, say days' work. In the most productive occupation *ad* is the return measured in goods. This return would gradually decrease as more days' work were employed, until *mb*, the marginal occupation, is reached. The lower value of future goods being the same as a higher value of labor, *ag* represents wages in future goods, while *ah* shows what they would be in present goods. So long as the rate of wages equals *ag*, the margin of production is kept at *mb*. There is thus a fund of goods turned over to workers equal to the area *ghcm*. These are the goods through which interest is paid. If they were not given to workers, wages would fall, and production would be extended to the new margin, *ef*.

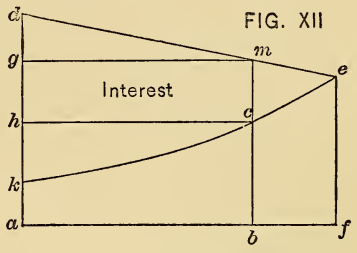


FIG. XII

The net effect of interest is to stop production at a higher point of productivity than if it were not paid. If there were no need of paying interest, the amount of production would be increased from *ab* to *af*. More laborers would be employed, but at no higher rate of wages. This quantitative increase of society would be the only effect of the disappearance of interest, and even this change would be slight if the amount of unused resources at the margin of production were small. Interest-paying thus slightly checks the growth of society, but imposes no burden on it. The interest

fund comes wholly out of the increased marginal productivity caused by its payment.

Production, it should always be remembered, is the making of goods, and interest is a payment in goods. There must, therefore, be an increased productivity before it can be paid. If without paying interest 1000 pounds of coal can be mined in a day, 1060 a day must be mined before capital valued at six per cent can be used. If 100 yards of calico are made by a workman in a week without any fixed capital, he must at least produce with capital 106 yards in the same time before it will come into use. In all cases the margin of production is higher after the use of capital than it was before. The increased productivity may be much more than sufficient to pay the interest demanded. The price of goods would then fall, but not so far that the product of the marginal laborer under the new conditions will have no higher value than his product under the old conditions. The new marginal product is much greater in amount and a little greater in value. Interest is the difference in value between the new and the old marginal product.

The two views thus harmonize. Interest to the consumer is an extra fund of utility due to the enlargement of his complements of goods. The struggle for this increased pleasure raises the value of goods, and gives an extra inducement to producers to increase their output. Interest to the producer is a fund of goods paid for the use of capital to increase his productivity. He pays this without any loss, because the margin of production under the new conditions is raised by the amount of the interest fund. Labor without capital

can still make the same return as before. Labor with capital gets an extra return equal to the rate of interest. The payment of interest is no more of a burden than is the payment of rent to a farmer on superior land. There is in each case an extra productivity equal to the cost of the superior instrument of which use is made. Interest is thus a kind of rent.

Producers and consumers both get an advantage out of the new conditions. There is an increased utility to the consumer, and an increased productivity to the worker. In each day or stage of production a man makes a choice. He consumes more and gets the added utility, or produces more and gets the added productivity. The man who does not get interest is not without a gain. He has enjoyed larger complements of goods than he otherwise could have done, and thus has secured an extra fund of utility equal in value to the interest fund going to others. Interest-paying checks the mere quantitative growth of society and forces qualitative changes in which all participate. It represents the victory of modern and varied consumption over the cruder use of goods that formerly prevailed. It is not due to the pain of abstinence, but to an extra inducement to consume. Added pleasures of consumption must be offset by an increased return for working. Primitive costs like abstinence and primitive defects like the lack of will power or the undervaluation of the future will disappear, but interest must endure while complementary goods — the test of social betterment — increase the pressure that causes it.

Funded income.

Interest is a flow of income to the holders of capital goods. It is measured subjectively by the added

utility of the last unit of consumption, and objectively by the increased return due to the last increment of capital goods. Interest is price-making, because goods made by capital have their value raised in comparison with those made by labor. There are always movements in prices when the rate of interest alters. There is, however, a kind of income usually regarded as interest that is not price-making, but price-made. It is due to the fact that different parts of the supply of certain articles do not have the same expense of production. Wheat is raised on land of different degrees of fertility. The price must be high enough to induce cultivators to produce on the poorer land. This price is more than sufficient to pay for the labor and capital employed on the better land. There is thus a flow of income to the owners of this land to which the name rent has been given. It is neither wages nor interest.

In spite of the fact that this third form of income is not interest, it is properly regarded as interest by men of affairs. The reason is that it is always funded and then bought and sold under the same conditions that capital goods are. Funded income gets its price from the amount of the income, and its value depends upon the rate of interest. To an investor an income to the amount of one hundred dollars has the value of an amount of capital goods that will yield a like income. The price of land also is fixed by its net income valued through the rate of interest. With the same net return land rises and falls in value as the rate of interest changes. All funded income gets its value in this way; its price being estimated through the rate of interest it becomes so much like capital that the difference is

overlooked. Nor is the difference worthy of consideration while production remains static. The income is the end of investment, and a price-determined income is as safe as a price-determining one. The difference appears only with movements in price, when all funded income must be revalued according to the new rate of interest.

To meet this practical situation the word capital must be used in two senses, or a new term must be introduced. The distinction has been made between capital goods, or concrete capital embodied in objects that aid production, and social capital, which includes capitalized income, as well as the concrete aids to production. Land, mines, railroad stock, franchises, and other valuable rights and privileges are capital in this sense. They are all investments, and must be contrasted with capital in the sense of capital goods, thus giving a clear perception of the difference between the price-making income due to capital goods and the price-made income arising from differential expenses or from monopoly.

This price-made income like rent is the effect of price and not its cause, yet it is due to a movement in prices. Income is always derived from price relations, and funded income is no exception to the universal rule. Before the rent of land can increase, there must be a rise in the price of food, for increasing prices of agricultural products go with increasing rents. Yet rents are not the cause of the high prices, since the price movement comes before the rise of rent. Rising prices also precede the funding of income. The goods from which the funded income is drawn are no higher in price than similar goods from which there is no income

of this kind. It is a result of the causes that fix the prices of goods for which they can be substituted. It is thus price-made, yet some article has changed in price whose place it can at least partially take.

Funded income is always differential. This does not seem true because so many monopolized articles yield an extra profit on all parts of the supply. Each gallon of coal oil sells for more than its labor price, and thus yields a large marginal profit. It seems, therefore, to differ from the products of land, some part of which sells at its labor price and thus pays no rent.

The difference, however, is not real. Land, in the sense economists use it, is not a concrete object with given qualities. It is an abstract concept including all the sources from which food comes. If it were defined concretely in terms of soil, climate, or geographical position, all of many kinds of land would yield a rent. Even if a more abstract classification of land were used and it were divided into wheat land, corn land, plough land, pasture land, and wood land, all of some of those kinds of land would pay rent. It is only when all definite qualities are lost sight of, and land is thought of merely as a food-producing unit, that a truly differential series is found. Of these abstract units of land we may be sure that some pay no rent, but of any concrete kind of land all its units may pay rent.

Put in this way, the same facts are true of commodities. All of any commodity may pay rent, just as may any concrete kind of land. But abstract units also exist among commodities. They supply wants, and each want may be satisfied in a variety of ways. Men want light, and one way of supplying it is to buy coal oil. But

for coal oil there are many substitutes; and every article that gives light must be made a part of the group of goods by which light is produced. We must therefore think not in terms of coal oil, gas, electricity, lard oil, and whale oil, but abstractly of units of supply. Put all these articles in a series, and we have an abstract unit like land. Arrange them in order of their expense of production, and the series will be differential just as the products of the land are. There is always a price-determining unit of supply for each want. All other units of supply have their value set by this unit, and they yield a rent equal to the difference between their expense of production and that of the marginal unit of supply.

The law of rent is merely an outcome of the law of substitution. Articles used in supplying the same want have the same price. If they differ in the expense of their production, the cheaper articles yield a rent. Rent appears when the supply of goods capable of satisfying a want is less than the demand. The price rises, and more expensive units of supply are made use of. The cheaper goods now give an extra profit that may be funded; but in this land does not differ from other forms of production. Every series of goods supplying a single want forms a group with one price-determining unit of supply. Each particular good, however, has a definite expense of production just as does each concrete kind of land.

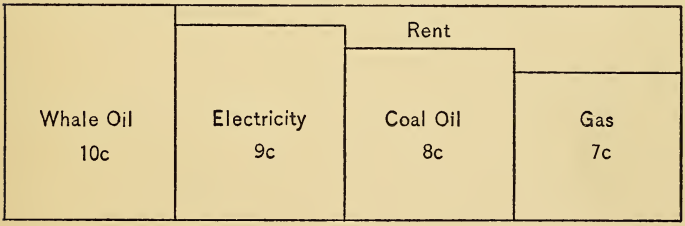
Any concrete good has the same expense for all its units. Every abstract group made up of goods supplying a single want makes a differential series with one price-determining unit. Each good is, therefore, a part of two groups. As a concrete object, it is a part of a

group of like objects having one cost of production. In its want-supplying power it is a part of an abstract group having a varying expense of production. Viewed concretely, a given good may have a marginal profit on each of its units. We can, therefore, say that it yields a marginal return above expenses. Viewed, however, abstractly as a supplier of wants, this marginal profit becomes a differential rent. The marginal profit on the concrete good exists because some unit of supply is more expensive than it. A given return, therefore, becomes profit or rent according as the good that produces it is viewed concretely or abstractly. The producer makes concrete objects, and views them concretely; his extra return is marginal, and he calls it profit. The consumer views goods abstractly as units of supply, and for each want there is a price-determining unit, whose cost fixes the extra return on all other units. This extra return is differential, and those who pay it call it rent. Profit and rent, however, are not two funds; they are one fund viewed in different lights.

Let it be assumed that a given district is supplied with light from four sources, whale oil at a cost of ten cents per unit, electricity at nine cents, coal oil at eight cents, and gas at seven cents. If these units of light were equally satisfactory to consumers, the price would be ten cents per unit so long as all four kinds of light were used. On the electricity used there would be an extra return of ten per cent, which would be called profit by the owners of the electric plants, and would be a marginal return on the concrete capital they employed. On the capital used by those who furnish the coal oil there would be a return of twenty per cent, and on the

capital of the gas company the return would be thirty per cent. All these profits would be marginal; dividends to these amounts would be given on all the real capital of each company. At the same time this whole extra return would be rent if viewed from the standpoint of units of supply. Each such unit would yield a rent equal to the difference between its expense and that of a unit of whale oil. Getting its value from the rate of interest on capital goods, it either is or may be funded. It is thus lost sight of as a distinct fund, and is confused with interest by the business world. Profit is a per cent of advance on concrete goods. Rent is a differential based on abstract units of supply. Those who get an extra return call it profit, and impute it to their capital. Those who pay it call it rent, and think of it as unearned increments of income. This means that in an abstract series all price-determined income is differential, but in its concrete form it is marginal.

FIG. XIII



These facts may be presented in a diagram by letting the base line represent units of supply, and the upright lines the price of the different units. The whole diagram would then represent the total cost of light to the district. The upper part of the diagram is the rent that may be funded.

Unearned income.

The preceding discussion has helped to simplify the problem of income. There is one kind of income derived from the exertion of human energy and another from the use of capital goods. These two, wages and interest, are the only price-determining elements, and thus are the causes of price movements. There is also a third kind of income that is price-determined. Looked at in one way it is a funded income, in another it is an unearned or costless income. In some of its forms it has been called rent and in others profits. It is, however, one fund and governed by one law. When there is an upward movement in the price of any unit of supply, unearned income, funded income, price-determined income, profits or rent appear. It matters not what it is called. It is the same fund, however viewed or named.

While this analysis gives three kinds of income, the business world recognizes but two. Both employer and employed divide income into two parts and attribute to the other all that is not in the part which they share. "All that is not profits is wages, and all that is not wages is profits." This is not a mere statement of John Stuart Mill. It is echoed by every business man and by every workman. An apparent opposition is thus created between the return on capital and labor. It is felt and asserted that one form of income cannot grow but at the expense of the other. Each recipient of income recognizes that it comes from a particular source, and sees it decrease or increase because of changed relations to another source of income. Now there are but two concrete sources of income, human labor and capital goods. Nothing of value is ever

produced but where one or both of these exist. They are the only concrete objects in production, and any thoroughly concrete view of it must impute all income to one or the other of them. Where then is the unearned income called rent, if neither laborers nor capitalists admit its existence in the income they receive?

From either point of view, then, there is a direct opposition between interest and wages. The whole return from industry is assumed to go into one or the other of these two funds. If, then, quantity of capital is fixed, what each additional laborer adds to the total product is his natural wages, and determines what all other laborers shall receive. Wages are thus measured at the margin of production, and rise or fall as the margin of production changes. When, however, the number of laborers is fixed, what an additional increment of capital adds to the total product equals the rate of interest. The owners of other capital goods can get no more than is created by the marginal increment of capital. Interest is thus measured at the margin of production, and rises or falls with it. Production, thus viewed from the standpoint of the capitalist, makes interest marginal and the only marginal return. Viewed, however, by the laborer wages are marginal and the only marginal return. Wages and interest can thus in turn be represented as differential and marginal.

In the first diagram[1] interest is marginal, and the amount of wages is the difference between the total product and the amount of interest measured by the

[1] These diagrams are taken from Professor Clark's recent book on "The Distribution of Wealth" (p. 330), to which the reader is referred for a more complete discussion.

marginal return on capital. Wages in the second diagram is marginal, and interest is the difference between the total product and the amount of wages measured by the product of the marginal laborer. As both diagrams represent the total product, wages, as differentially determined in the one, must equal wages marginally determined in the other. The two areas representing interest are equal for the same reasons. The whole product from either point of view becomes wages and interest and nothing else. There is no unearned income

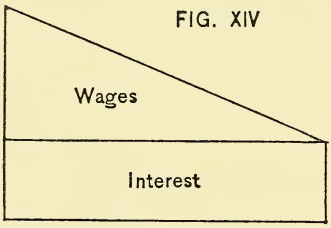


FIG. XIV

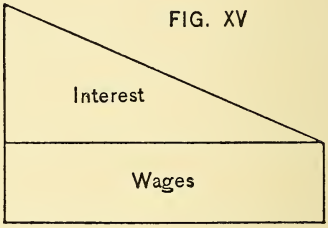


FIG. XV

in sight, and the popularly conceived opposition between the two seems to be justified.

Let us, however, examine more closely the full meaning of these diagrams and the ideas they represent. When it is said that the number of laborers is fixed and the quantity of capital goods increases, it seems as if all the additional return were due to the increase of the capital goods. This, however, is not true. Capital goods are made productive by some application of force, but not necessarily by some application of labor. Labor and labor force are different. The latter includes more than the former. Labor means a number of days' work done by human beings. Labor force is any mode of motion that makes capital goods productive.

A machine can be set in motion by human hands; it can also be set in motion by water-power, wind, steam, or gravitation. Each of these is a part of labor force in the sense that they are substitutes for human exertion, and must be reckoned with in any attempt to make an additional quantity of capital goods productive.

If the number of laborers is fixed and the quantity of capital goods increases, it does not mean that there is no increase of labor force. Many natural forces will be used to make the capital effective, and the laborers themselves, although no more in number, represent more labor force. If a man tends three machines instead of two, there is with this increase of capital no increase in the number of days' work. But each laborer is used more effectively, and certain qualities in him that were dormant when he tended but two machines become active when he tends three. If a farmer buys a windmill, he does not necessarily employ more laborers, but he who cares for it is more efficient. The labor force has thus increased with this growth of capital.

The contrast is not between capital goods and the day's work of a fixed number of laborers. With capital must be contrasted all the forces, natural and human, that determine its productivity. These natural forces are indefinite in number, and vary in their usefulness with the amount of capital. Every increase in capital makes them more effective, and thus increases their number considered solely as aids to the utilization of capital. Laborers, too, are not single units in their relation to capital. They are to be regarded as having in them a number of different possibilities for making

capital effective, each of which is more or less fully used according as the quantity of capital with which they come in contact is great or small. Some of them may not be used at all if the quantity of capital is limited. It is hard to see how an increase of capital should fail to draw out of the laborers some hitherto dormant power. The possible powers in men for the utilization of capital are as large and as indefinite as are the forces of nature having the power of aiding capital.

We cannot, therefore, correctly contrast capital goods with days' work and say that all production is due to them and that the product should be divided between them. The true contrast with capital is labor force, using the latter term in so broad a sense that it will include every natural or human agency making capital productive. Viewed in this way labor force is abstract, capital goods are concrete. Labor force yields a differential return; the return on capital is marginal. Some of these units of labor force, when combined with capital, are very effective; others are less so, while still others increase but little the effectiveness of the capital employed with them. There are thus marginal units of labor force that yield no additional return. The return on other units is measured by their additional return just as the rent of good land is fixed by marginal land. In fact the case of land is but an example of the difference in the effectiveness of the units of labor force connected with it. With every increase of capital on land some new units of labor force are made effective or have their effectiveness increased.

It can now be seen what the third form of income — that which is not interest or wages — is, and how it

grows. Labor force is made up of a number of concrete days' work and of a group of substitutes for labor. Wherever a natural force is utilized as a substitute for labor, or a new utilization of laborers is made not involving an increase in their number, the additions to the productivity of capital made in this way go to the persons controlling these forces. This increased productivity of capital is valued at the price of the labor for which they are substituted.

From this point of view, rent is the price of labor substitutes. They do not increase the price of products, because goods made by them have the same price as those made by men. The price-fixing articles are always those made by labor. The substitutes do not influence price, nor are they used at the expense of the laborers or of the capitalists. Neither wages nor the interest on capital goods are altered. Whoever pays rent increases his productive power by the exact amount of rent. This superiority is due to the use of some labor force that permits him to dispense with laborers. It is to him a matter of indifference whether this labor force or more laborers are employed. The expenditure of funds is the same. It is proper, therefore, to think of the fund paid out in this way as wages. It has its value fixed by wages, and comes from the same source as do wages. The wages fund, when the term is rightly used, includes all money paid for labor and for all substitutes for labor.

It is this wages fund, not true wages, that is the fund to be contrasted with the interest on capital goods. All return from industry is either interest or a part of the wages fund. The wages fund in this broad sense is a

differential to interest, which as a return for capital goods is marginal. There is thus a meaning to the diagram just used, if wages fund be put in the place of wages. Rent is wage-determined, but not wages. Thrown together, the two make a true differential that stands in contrast with interest.

Changing the point of view, capital goods is made a fixed quantity, and labor an increasing quantity. Additional labor, in the sense of more days' work, adds a decreasing amount to the total product. Labor thus becomes marginal, and the marginal return to the labor fixes the pay of all laborers. To total wages in this concrete sense, all the rest of the income of society is the residual. When a few laborers were employed with all the capital, the return was great, but it gradually decreases as the number of laborers increases. The capital goods must be divided among a larger number of workmen. Thus their efficiency falls off, and when measured at the margin the return to capital, being the residual, is differential. Capital in this sense is not merely capital goods, but all valuable objects that aid labor. Capital goods are important to laborers because they increase the efficiency of labor. Anything, however, that does this is capital in the sense of aiding production. Capital goods are the aids to production made by labor. In addition to these there are many aids to labor not made by it, of which land is an example. The forces and material embodied in it aid workmen, but are not made by them. Contributions are also made by many artificial things. Corporations, franchises, laws, customs, rights, moral qualities, peculiar abilities, whether natural or acquired, and a great

variety of other objects, qualities, and forces, contribute more or less to the output of goods. In so far as they do, they are valued by the income they create, and become a part of the social capital. All these must be put with capital goods to make up the social capital whose income is the residual to the sum of wages. Each additional laborer adds something to the value of this social capital if his presence forces down the margin of production. Some of the income that went to other laborers is now taken from them, and increases the incomes of holders of land, franchises, or other valuable rights. The marginal capital is not capital goods, but some of those artificial objects that become capital through the income they absorb. To withdraw labor does not mean to throw capital goods out of use; it may mean merely the destruction of social capital by taking away its income. Some land, franchise, or right becomes less capital, or ceases to be capital because it yields no income.

Capital as a differential to labor is all social capital — the whole field of investments. It includes not merely productive capital goods, but also all sources of income at their capitalized value. Interest proper is the return on capital goods. The interest fund is much more than this amount. It includes the income of all objects measured by the rate of interest. The income of a railroad corporation or of a street railway — no matter how much the stock is watered — belongs to the interest fund. The value of this stock is determined by the rate of interest, and so also is that of any other income that may be funded.

It is this interest fund in its entirety that is the

residual, and hence the differential to the total sum of wages. Concrete wages is marginal; to this fund all interest and all income whose sources are valued through the rate of interest is a differential. Interest proper, that is, the return on capital goods, is also marginal; to this fund all the income derived from labor force considered as an abstract quantity is a differential. These two points of view presented in diagrams appear as follows: —

FIG. XVI

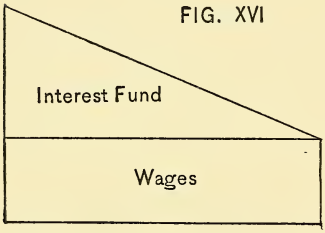
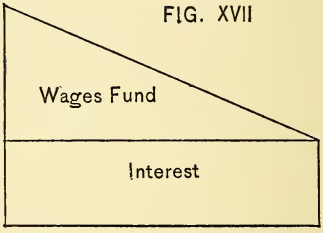


FIG. XVII



In the first diagram the whole number of concrete days' work is contrasted with the income derived from the whole field of investment. In the second, the income derived from all capital goods is separated from that coming from the whole labor force, whether natural or human. The interest fund in the one is more than the interest in the other. So, too, is the wages fund in the one more than the wages in the other. There is a fund not interest or wages in the concrete sense that is present in both differentials. The hidden difference

Interest fund — interest = wages fund — wages.

on both sides of the equation is the funded income of society or rent. Rent is wages in the sense that it is measured by the amount of labor it displaces. It is interest in the sense that its source is valued through

the rate of interest. This source is a thing, and hence capital to the investor. To the producer it is a force, and hence labor or a labor economizer. Each sees it as a part of the other agent in production, because it must be bought and paid for as if it were a part of this contrasted agent. Rent is not an item of expense to either capitalist or laborer. All goods have their prices fixed by units of supply on which no rent is paid. It is no wonder, therefore, that rent is overlooked or seems a part of other funds.

When two quantities are contrasted so as to make one marginal and the other a differential, the one considered marginal is made up of concrete units, while the second is composed of discrete or abstract units. Capital goods and laborers are concrete. Investments, land, and labor force exist in a multitude of diverse forms. The wages of laborers cannot become a differential to the return on capital goods, nor can the reverse be true. Each of these concrete objects must be contrasted with an abstract unit made up of all the remaining forces and agents of production. Units of this latter kind are the only ones that form a true differential with concrete capital or labor. When capital goods are considered marginal, laborers are among the objects grouped together to make the opposing abstract unit. Capital goods, also, are a part of the group of discrete objects contrasted with labor as a marginal quantity. But in neither case is the concrete element in the differential its only constituent. Many diverse objects are put in with it so as to create the grading needed for the differential. Two concrete sources of income cannot be differential to each other. If two or more concrete

agents, acting without external aid, produced income, the return from this production would be constant and hence there would be no differential.

he static quilibrium.

Under the simple conditions of a stationary society, labor and capital do not change in amount nor are they utilized in new ways. There are no dynamic changes, all disturbances and friction disappear, competition becomes general, and labor and capital are mobile. The standards thus created are said to be normal or natural. Each commodity, it is held, sells for enough to pay the usual rates of wages and interest and for no more. There is then no net surplus, no residual, nor any funded income, for an investment could not rise in value above the value of the capital goods used in it.

Profits as they appear in dynamic society are the net gains of the industrial managers who invent new processes or organize their laborers more efficiently. So long as these inventions and methods are not generally known, those introducing them get a profit above the usual return, but this profit tends to disappear as other managers gradually make use of these inventions or processes. But as they do, new inventions and methods are introduced by the more enterprising. Profits of this kind are peculiarly dynamic in nature. They come only with progress, and disappear when the results of progress are utilized by the public. Plainly these profits would cease in static society, and no new ones would be created. There seems, therefore, to be no need of considering anything but wages and interest.

This conclusion, however, is not correct. The profits of which mention has been made are those of falling prices due to improved processes. When improve-

ments cease, these also cease. But there are gains due to rising prices, and these do not disappear in a static society. The gains of managers are of two kinds — inventors' gains due to falling prices and promoters' gains due to rising prices. Inventors watch the relation between men and nature, and take advantage of any possible adjustment. Promoters watch values. They foresee upward tendencies in prices either relative or absolute, and take advantage of the conditions creating rising prices to fund the income coming in this way. These advantages will not be taken away in a static society. They are perpetuated, hidden in forms that make them seem to be capital. The presence of funded income, however, can be tested by comparing the value of total investments with that of the total capital goods. There is funded income if the former exceeds the latter. In a static society rent, profit, and funded income are the same, and their name is a matter of indifference.

Funded income or rent stands in direct contrast with wages. A fall in wages gives an increased value to objects that labor uses in production, and causes an increased flow of income to their owners. This income remains in their hands until a rise in wages takes it away. There being nothing in a static state to create a rise in wages, it would continue as rent, and be enjoyed by others than capitalists and laborers. The third form of income is never absent even in a static state.

Suppose the income of a society to be equal to the figure *abcd* of which *abce* is wages and *ecd* is interest. If the rate of wages falls through an increase of workmen, the return would now equal the area *ahgd*, of which *ahgf* would be wages. There is now a new area

ecfg. Will it go to the holders of capital goods as interest? No. If labor and labor products have fallen in price, some other objects must have risen in price, or labor and its products could not have fallen. Capital goods being made by labor cannot rise in price when labor falls, unless there is some lack in the mobility of labor, for mobile labor being free to move in any direction would flow from industries making consumption goods to those making capital goods, if the latter rose in price. The owners of capital goods are, therefore, prevented from obtaining the income *ecfg* for the same reasons that the laborers are. Capital goods are a

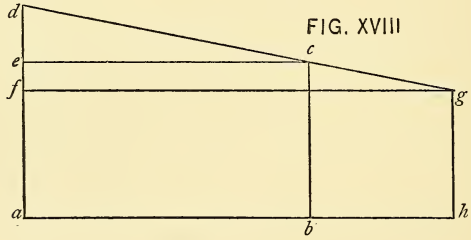


FIG. XVIII

function of labor. Where labor is mobile they must fall and rise in price together. This new income must go elsewhere. It is funded by those who foresee where prices are to rise, and the securities they create become a part of the permanent investments of society.

Let it be assumed that the quantity of capital is limited, and that the number of the laborers is increasing. In this case the wages of the laborers would decrease as their number increased. If the return when one laborer used all the capital is twenty units of goods, thirty units when two laborers used it, thirty-nine for three, forty-seven for four, fifty-four for five, and sixty

for six laborers, the following table would represent the division of the return, C standing for the amount of capital and L for a unit of labor.

No. of laborers	Product	Pay per laborer	Total wages	Amount left for capital	100 units of present goods produce in future goods	Inducement to increase capital goods
1	20					
2	30	10	20	10	110	0
3	39	9	27	12	112	2
4	47	8	32	15	115	5
5	54	7	35	19	119	9
6	60	6	36	24	124	14
7	65	5	35	30	130	20
8	69	4	32	37	137	27

It should be noticed that the share assigned to capital is not determined positively but negatively, by attributing to it all that cannot under the conditions go to the laborers.[1] They get an amount equal to the marginal return multiplied by their number. But can all this residual go to the holders of capital goods, and if they do get it, can it properly be called interest? When two laborers use the capital, the return on it is 10 units; when six men use it, the return is 24 units. This larger return on each unit of capital goods could not but increase its value. If the capital goods that produced the ten units were worth, in the first case, 100 units of consumption goods, they would be worth at least 240 units of consumption goods, when the return on them is increased to 24 units. Production goods would be worth unit for unit more than double what consump-

[1] See Professor Clark's reasoning on page 330, "Distribution of Wealth."

tion goods are, although they are produced by the same amount of labor. Each unit of capital goods must be replaced by labor. More capital goods and less consumption goods would be made, if the price of the former rose while that of the latter fell.

The additional labor can be applied at the margin of production, or it can be used to create additional capital goods. There is no law of diminishing returns checking the increase of capital goods. If the return for capital rose above the ten units, the additional labor would be wholly applied to its production. No labor would be applied at the margin until the return on capital fell again to ten units. If, when this happens, some labor is still unemployed, a part of it will be applied at the margin and the rest to the production of capital goods. It should be borne in mind that capital and labor can be partially substituted for each other. An increase of capital, other conditions remaining unaltered, leads to the substitution of some capital for labor, and thus tends to reduce wages. An increase of labor will likewise substitute some labor for capital, and thus tend to reduce interest. After the quantity of labor is increased, the equilibrium is not restored until more capital is created. After an increase of capital, some labor is displaced before the two can come to an equilibrium. Under static conditions, therefore, a fall in interest or wages results in a fall in both. The losses from these two funds would be the gain of the holders of funded income. . If additional labor applied at the margin of production gives decreasing returns, there exists somewhere a lack of the power of substitution, and those owning resources where this power fails have a valuable

monopoly. Diminishing return creates an income that is neither wages nor interest. The failure of the power of substitution here or elsewhere does not prevent a static equilibrium. A society with no other material for light than coal oil could be as static as one with twenty substitutes for it. On the contrary, the fewer the substitutes, the easier is it to create a static society.

Interest is the difference between the value of capital goods and those fitted for immediate consumption. Capital or future goods gradually ripen into consumption goods, and as they do, their value increases. To make interest possible, capital goods must have a less value than consumption goods. Otherwise the increase of their value upon which interest depends could not take place. If, then, capital goods have a higher value, unit for unit, than consumption goods, the income derived from it is not interest. It is some kind of funded income and must be rent or profit. If a corporation has capital goods that as consumption goods would be valued at one million dollars, and they acquire a value of two million dollars because of the income they bring to the corporation, this income is partly rent. Every corporation, the value of whose stocks and bonds is more than that of its capital goods, has funded income. If then the income from capital increases from 10 units to 24 units through an increase in the number of laborers, this extra income is not interest. It is a funded income and a sure indication of some monopoly. The fact that capital does not increase shows that it is a monopoly, or that some disguised limitation exists creating a value in other objects. The most slowly increasing factors in distribution are monopolies, and their

income belongs to the monopoly fund, and not to interest or wages. If capital, because an absolute monopoly, cannot increase, its income is no longer interest. A static equilibrium does not remove monopolies, nor can it lower the high price of goods that their existence creates; nor does society get rid of funded income by becoming static. Its amount is reduced only by dynamic changes enlarging the power of substitution. Every increased power of substitution lowers the price of the articles for which substitutes are created and thus reduces the amount of price-made income. The source of funded income is a low margin of production. Only dynamic changes raise this margin, and thus transform funded income into wages and interest. This transformation a static society is powerless to make. In it funded income is fully capitalized, and thus the difference between it and capital goods is lost sight of. But the difference is there, and the income is there, no matter how thoroughly disguised. Rent does not fall off except as wages rise. A low margin of production means high rents in any society. They tend to disappear, not as Professor Clark assumes, in a static state, but in a dynamic society, where an enlarged power of substitution increases the marginal return. In a static society rent endures as a part of the old sources of income. There is no force so changing prices that it will be transformed into marginal income. In a dynamic society the older forms of rent are steadily changed into wages by the rise of the marginal return. Rent persists, but it is derived from new sources of income created by a succession of inventions, discoveries, and improvements.

Ricardo was wrong in assuming that the growth of rent is at the expense of profits. He thought that a sum of wealth was taken from producers equal to if not greater than the amount landlords gain by the increase of rent. There is a partial justification of this view in the fact that profits were defined so as to include the cost of risk. Some of the gains of landlords might be from the funds that fortunate producers enjoyed because they escaped the cost of risk. But this fund in the hands of lucky producers or traders did not represent a net gain to society. There was an equal loss to unlucky traders, who paid this loss out of their capital. The transfer of this fund to landlords means some social or industrial change by which this risk was avoided. The fund now becomes for the first time a net addition to the revenue of society. It is one thing to say that this new revenue of the landlord is unearned; it is a different thing to say that some one else is deprived of an income he formerly enjoyed. The latter fact must be proved before rent can be regarded as a species of exploitation. Rent is a costless income, not a seized income. It represents some change in production by which effort is reduced. It is the part of the net gains that go to individuals instead of to society. It is nevertheless a social gain and an index of increased productivity.

While the growth of funded income is never a loss to the public, one form of rent often grows at the expense of other forms. Every change in prices shifts from one class to others the part of the social surplus that takes the form of rent. If the expense of one price-making unit of supply falls while another in-

creases, there is no net addition to the fund of rent. There is merely a transfer of wealth without a social gain. The recent fall in the price of agricultural products released a large part of the rent fund going to the owners of land. The recent growth of other forms of funded income is largely at the expense of farmers owning their own land. But even in this and other similar cases there is a net gain as well as a transfer of wealth. The lowering of the value of price-making units of supply represents some increased power of substitution on the part of consumers, or the introduction of improved processes of production. The transfer of funded income goes hand in hand with changes that bring large social gains. It can, therefore, be inferred that a transfer of funded income, like its net increase, is an index of prosperity. The public properly sympathizes with the losers, but it does wrong to regret or to prevent the change.

Income as equalized by Natural Law.

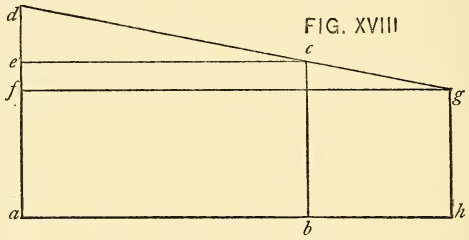
Changes in the flow of income are always due to movements in prices. The marginal unit of supply determines the expense of satisfying each want. When its price is determined, each other unit of supply yields a rent equal to the decrease in expense. Rent is always present in any complex society, disguised, however, as a funded income and sold on the investment market as though it were interest on capital goods. All investments are thus capital to the business world. The income from them makes up the interest fund standing in direct contrast to wages. Viewed in this way, wages are the payment for concrete days' work, which can be increased or decreased only by changes in the number of laborers. Interest is then the payment for an ab-

stract fund of capital made up partly of capital goods in the constant process of replacement, and partly of the sources of funded income valued at the current rates. All these thrown together make a differential income to which wages are marginal.

Where differential and marginal income can be contrasted in this manner, the marginal income represents socialized income. Every one participates equally in it, since all persons can fulfil the conditions by which it is secured. Differential income is unsocialized, or at least but partially socialized. Either many persons are excluded from it entirely, or it can be obtained upon conditions with which but a part of the community can comply. There is thus a marked contrast in these two forms of income. Where the various means of production are chosen in the order of their productivity, the number of laborers determine how many of them will be used. The least productive of these fixes the marginal wage. All extra return on others is a part of the interest fund, and becomes either interest on capital goods or a source of rent. If this be so, changes in wages affect the size of the interest fund. A rising wage prevents the use of the least productive opportunities for labor, and cuts down the difference between the best and the poorest opportunities. The interest fund, being a differential to wages, must now fall off. It must, on the contrary, grow if the rate of wages falls. The difference between the best and the poorest opportunities for labor increases, and with the change the differential income grows.

Let the base line represent the number of days' work, and the return from them be measured by the distance

between it and the line *dg*. Then when the number of days' work equals the line *ab*, the area *abce* will represent wages, and the area *ecd* will represent the return on the investments. Increase the amount of labor to *ah* and wages equals the area *ahgf*, while the interest fund grows until it equals the area *fgd*.



Reverse the conditions by reducing the quantity of labor, or improve them by making the efficiency of all the days' work more nearly equal, and the interest fund must shrink at least relatively to the whole income of society.

Accepting these well-known facts, investments are socialized by any change raising the margin of production, and income is desocialized by any change lowering the margin. Little importance attaches to the ownership of investments. Their real significance comes from the income derived from them. If no income went to the owners of property, it would be completely socialized, while property is partially socialized by every reduction in its total income, provided no reduction takes place in the total product of industry. The size of the interest fund thus fixes the amount of desocialized income, and this in turn depends upon the amount of the differential income.

An abstract proposition of this kind has little meaning unless transformed into concrete form. For this purpose, return must be made to the difference between interest on capital goods and funded income valued through the rate of interest. These two united and blended make the differential to wages called the interest fund. It is paradoxical to say that the interest fund is reduced by raising the rate of interest, yet the statement contains a truth hard to put in any other way. Funded revenue being valued through the rate of interest, a rise in interest reduces the value of investments depending upon it. If the rate of interest is four per cent, an interest fund of forty millions, divided equally between interest proper and rent, gives to investments a value of 1000 millions. There would be 500 millions of capital goods, and an equal amount of other investments representing funded income. If the rate of interest rose to five per cent, the 500 millions of capital goods would retain its value, but other investments would fall in value to 400 millions. The total investments would be 900 millions instead of 1000 millions as before.

Assume further that the change in the rate of interest was brought about by the pressure of a rising rate of wages forcing up the margin of production. This new adjustment, taking a part of the funded income from the interest fund, would give it to the laborer as wages. If 5 millions of funded revenue was thus transferred, the 15 millions remaining would be valued at 300 millions, reducing the total value of investments to 800 millions. It does not follow, therefore, that a reduction of the interest fund means a fall in the rate of interest. The

rate may go up while the amount goes down, and still the sum of capital goods may remain unchanged. In the case just given, 5 millions have been added to wages and 200 millions of investments have been socialized. The pressure of a rising rate of wages, affecting as it does the margin of production, falls entirely upon the funded income. Capital goods still get their old return, and may even get more than before.

The process can go on indefinitely in a progressive society. The only limit would be the reduction of the interest fund until it contained nothing but the return on capital goods. But this stage would also involve the socialization of interest. Capital goods are made and replaced by labor. If there is no obstacle to the flow of labor to capital goods, each laborer will make his share of capital goods and thus enjoy the income derived from them. Interest would then be socialized in the sense of being equally distributed. It makes no difference what income is called when all share alike in its distribution. The ownership of capital is unimportant unless it disturbs the equal flow of income to all who participate in production. No one would allow another to have a permanent income from capital at his expense, when by making certain capital goods this perpetual flow of income would be his to enjoy. Ownership under these conditions would mean the control of industry without any special rights to income.

This ideal result is partly realized in every progressive society. Rent is due to the high cost of the marginal units of supply. Every increase in the power of substitution cheapens some marginal unit or puts a less costly article at the margin. This particular rent is

thus reduced, and with the falling off of funded income due to it, investments are cut down in value and some, perhaps, made common property. Land, franchises, corporate rights, and other intangible property serve merely as means of directing industry if they give no net income to their owners. In recent years the reduced value of agricultural lands has shown how a fall in prices can socialize property. Land is now as well managed as before, but its income has been to a large extent made social through the loss of peculiar advantages formerly enjoyed by its owners. Many railroad corporations through the fall in rates give no income to stockholders, and yet they are kept up and often well managed. The increased facilities for water transportation will socialize the income of many more railways by forcing down rates. In the same way the use of electricity on street railways has socialized a part of the income formerly going as rent to the owners of houses near the centres of great cities. Large rents are now obtained on sugar, oil, and many other raw materials, and this income being funded increases the amount of investments. But for these articles substitutes will sooner or later be found, and then this income will be socialized just as land rents have been.

Rent is constantly being created by social progress, but in any particular form it is steadily being cut down by the increase of the power of substitution. The price of foods in England was on an upward curve for over a century — from 1757 to 1873. So long did this state continue that the rise of the price of food and of the rent of land came to be regarded as a condition of nature. Many a theory based upon these supposed

facts fell to the ground when substitutes for the staple English foods were found. So will it be with predictions of the permanence of any particular form of rent. It must disappear if society continues progressive. Rents like profits are temporary. The difference is in the length of time that rent curves persist beyond similar movements in profits. The power of substitution acts in both cases, but more quickly with profits than with rent.

All differentials then are rents. A low margin of production means high rents. A rise of the margin cuts down rents and socializes the income formerly flowing into this fund. The converse is equally true. There is no way to socialize income but by raising the margin. If the standard of life is low, and the productive power of labor is small, investments are large in amount, and the revenue derived from them gets to the public only through special qualities not possessed by the many. There is a public for investments, but it is only a fraction of the whole people. To improve present conditions means not to seize funded income or to transform it into some new fund, but to reduce its amount. An increased power of substitution is the only remedy for an unequal distribution of wealth. This may come slowly, but it will come, and with it will be a rising margin of production changing rent into wages. In the solution of the wages problem lies the only hope of eliminating rent.

A summary.

It is now possible to bring the contrasted views of production into more coherent relations to each other. The laborer's viewpoint pictures the simple relations of an isolated man and his environment. More laborers

mean more contact with nature, but no marked change in the attitude of men toward it. Each workman has an equilibrium to maintain in which his return corresponds to his effort. If his energy can be conserved, there is a perpetual round of production. Effort makes goods; goods create utility; and utilities are transformed back into energy. The goal of this progress is painless effort through energy that is again and again restored by its reappearance as goods and utility.

This contrast, however, does not exist with a capitalist. He deals with forces and with material which is capital and is capable of increase. With capital's increase forces are better utilized or the less costly is substituted for the more costly. These forces are of two kinds — labor forces and natural forces; the former are expensive, the latter are free. There is therefore in the mind of the capitalist an instinctive opposition to labor costs, which in his opinion are the great burden on industry. Every improvement dispensing in some way with labor, his ideal would be realized if all production were carried on by natural forces. The capitalist is right in his opposition to labor costs and in his desire to create substitutes for labor. But the laborer is equally right in demanding high wages and an equilibrium between effort and return. Both these views are in essence correct, and no opposition exists between them if they are worked out in detail. Trouble begins, however, when an attempt is made to combine them into one point of view. To harmonize them demands, not a combination, but a clear recognition of the essential features that each viewpoint neglects or obscures.

These viewpoints are not radically altered by the introduction of the concept of marginal return, but the terminology by which they are described becomes so similar that it is easy to confuse them. Other conditions of production remaining the same, an increase in the number of laborers reduces wages by lowering the marginal return. Under like conditions it is also said that an increase of capital reduces interest by lowering the marginal return. Where then are wages fixed? At the margin. And where is the rate of interest fixed? The reply is also at the margin. It is then assumed that both wages and interest are fixed at the margin, and that the marginal return equals the sum of wages and interest.

A closer examination, however, shows that these two margins are not the same, and that the two sums, wages and interest, cannot be added to form a gross marginal return. The laborer strives for an equilibrium between effort and return. This return is in the form of utilities, and the more goods he has the lower is their marginal utility. They supply wants of less urgency, and are not worth producing when the marginal utility sinks below the effort of production. It is the *want* margin, therefore, that fixes the rate of wages. The capitalist, however, has to do with forces and material, and these depend upon objective relations. His margin of production is the place where the fewest goods will be produced for a given outlay. Arrange all the opportunities for investment in a series so that the more productive come first, and the marginal return in goods will be lowered as more of these opportunities are utilized. The margin of the capitalist is the *goods*

margin and thus is an objective fact, not subjective relation, as is the *want* margin of the laborer.

All the return at the want margin can go to the laborer at the same time that all at the goods margin goes to capital. The defect in the laborer's viewpoint is due to his failure to recognize the difference between present and future goods. Return to him is the result of effort, and is measured as soon as the effort is put forth. This means that he thinks of return in terms of future goods, and his margin is a margin of these goods. In this margin the capitalist gets no share. His share comes not from an increase of goods, but from the increase in the value of certain goods that in time ripen into present goods. This additional utility going to the capitalist is not a marginal utility. It is a differential when measured by the marginal want of the laborer that he supplies wholly with his own effort. At the laborer's margin, therefore, he gets the whole return. The capitalist shares only in the additional utility created by intenser wants and complementary goods.

At the goods margin, however, — the place where the production is least efficient, — all the return goes to capital. When viewed as abstract fund, capital is capable of assuming a thousand forms, but each capital good is in some concrete form and capable of but one use. At a given moment all capital is concrete goods, each unit of which has a particular end. Additional capital is always more of these concrete goods fitted for some definite act of production. The marginal capital is, therefore, concrete, and must give a fixed return on itself or it will not be created and used. The

concrete margin of goods production must yield enough to pay the rate of interest on the capital goods used there, but in the case of both labor and land there are no concrete units at this margin. Each unit of land and labor has several uses. Every laborer uses many concrete capital goods, and on each acre of land many kinds of tools and machinery are employed. The marginal capital good has, therefore, in conjunction with it, not a whole laborer nor a whole acre, but merely one use of a laborer and one use of some land. If a farmer puts up a windmill to pump water, he does not hire an additional laborer to manage it, but makes a new use of some laborer he already has. So also, if he buys a new cultivator to pulverize the soil, he does not employ more land; he brings out new uses in the land he has. At the concrete goods margin there are then capital goods, but only uses of men and land. The process of increasing capital goods continues on each farm or in each industry until the marginal return only suffices to pay for the additional capital used.

Instead of the increase of capital bringing labor and land toward the margin, it removes them farther from it. Only a part of the new capital is used at the concrete goods margin. Much of it is sunk in land or used to elevate men, and thus augment their productive power. After each increase of capital the goods margin is somewhat lowered, and along with the change comes a lower rate of interest. But land and men are improved. Each acre of land is farther from the margin than before. Only a marginal use of each acre is at the margin, and for this the capitalist pays nothing. Each individual man through education, increased skill,

and better social conditions is also farther from the margin than before. His wages are fixed by intermarginal efforts because they determine the type of men to be employed. An increase in capital not only adds somewhat to the goods used at the margin, but also changes the form of the intermarginal capital. Better tools and machinery are used, and to tend them a superior laborer is employed. This superior man can not only properly tend the better tools and machinery, but he can also tend more machinery. He can, therefore, be employed in connection with the marginal capital with no more cost than if it were not in use. With a fixed number of laborers the capitalist will extend the use of capital so long as the whole return at the margin is enough to meet the interest charges.

The whole of the subjective wants margin goes to the laborer. Interest is a part of the differential utility created by intenser wants and complementary goods. The whole of the objective goods margin at the same time goes to capital. The laborer is paid out of the added return which human efforts give to the forces and materials that the capitalist controls. Natural forces and material are free goods to the capitalist. He uses labor only when it gives an additional return beyond these free goods equal to its expense. Wages are a differential to the free goods created by natural forces and materials open alike to all capitalists. At the wants margin, therefore, wages are marginal and interest a part of the differential, while at the goods margin interest is marginal and wages a part of the differential. The remainder of the differential in each case is the monopoly fund. It is a factor in distribution so long as

the power of substitution is incomplete and prices fluctuate so that there is a market problem independent of the problems of value and production.

It is proper to say that the marginal urgency of human wants determines the rate of wages, but it is not correct to affirm that wages are fixed at the concrete margin of goods production. On the contrary, as this concrete margin is lowered the rate of wages rises. With each fall of the margin, because of the increase of capital, men as individuals move farther from the margin and get more wages. Wages go up through the same causes that lower interest. Any movement of capital toward the margin is sure to transform a part of it into forms that improve and develop the industrial qualities of laborers. It is the marginal capital that fixes the return on all capital, but it is not the marginal laborer that fixes the wages of other laborers. Capital moves toward the margin. Labor moves from the margin. Each lower class of labor has its wages fixed by the class above it. The strongest of each class tends to move into the class above, and they keep the wages of each class near enough to that of the higher class to prevent an exodus of the better workmen. It is, therefore, the maximum productivity of workmen that determines wages. Whenever a new maximum is set by any class of workers, all other workmen are brought into direct relation to the new standard, and their wages deviate from this level by the expense and trouble involved in the transfer from other classes to it.

A new labor level raises all workmen, just as a new kind of agriculture leads to the improvement of all land. The best workman and the best land set the

pace for all men and land. Changes are no sooner introduced than modifications of skill and of agriculture become apparent in every section of the industrial world. It is not the man most easily dispensed with, but he who is least easily dispensed with, that fixes the rate of wages. It is also the best land, not the poorest land, that determines the value of land. Each workman tends to become the best workman and each acre the best acre. If the transformation does not take place, the difference in the efficiency of men and of land is measured by the obstacles to this transformation, and the return will differ accordingly. Capital will make the transformation if the obstacle is not greater than the value of the capital needed to remove it.

When changes in production come, the starting-point lies in the increased pressure of human wants, which acts directly on the laborer in the increase of energy, and indirectly on production through the increase of capital. The increased energy can accomplish more through the increase of capital than through direct contact with nature, where so often the law of diminishing returns bars effective action. Then this new capital is applied to the improvement of men and land, removing them from the margin. There are now for all laborers an increase of options and a greater power of substitution. A rise in wages follows these changes. It is the last link in the series of changes making the higher wages an effect of the lower margin of capital. As the differences in investments wear away, the return on all capital sinks to the level of the marginal capital, but as the differences in men and land disappear, all men become equal to the best man and all land equal to the

best acre. There can be no other static equilibrium. So long as some men or land are not at their maximum productivity, capital will be withdrawn from the margin and sunk in men and in land. Dynamic changes continue until the return on all capital sinks to the marginal level, and the return to men and land rises to its maximum. Labor and land tend toward the higher level; capital toward the lower. The static measure of productivity is therefore the maximum return for labor and land and the minimum return on capital.

PART II

INCOME AS DETERMINED BY HEREDITY

A Study of Discontent and its Remedy

CHAPTER I

Income as Fixed by Struggle

Economic freedom.

The restraints of which people are conscious are those that control their actions or such as deny them participation in the public decisions. A man wants citizenship, choice of action, and the right to control property, and these being acquired, he depends upon his individual activity for the satisfaction of his desires. But this idea of freedom is not fundamental, for the essential pleasures and activities being economic, make any notion of freedom futile that does not insure the possibility of production as well as the power to exist.

Recognizing these facts, many writers have made free land the one essential to economic freedom, arguing that coercion is impossible if each individual has a strip of land upon which to labor. He can be enticed into social coöperation only by offering him more than his land produces. Groups of such men have a safeguard against usurpation and exploitation, for it would be possible to withdraw from a productive group if a proportionate share of the joint product was refused. In this sense free land is not a simple condition but the picture of conditions, each of which is in a measure realized in primitive societies. The holder of land has opportunities for activity and is insured the results of his own productivity. He has also ways in which to exert himself profitably, and his faculties are stimu-

lated by the variety of his occupations. The results of his past efforts are stored up to enable him to have leisure, or to enjoy sports and other activities that his situation affords. Society or solitude is his as he wants it, and there are no indispensable conditions to his existence for which he is dependent on others.

While free land may in this way insure economic freedom, it is not essential to it. The conditions it creates can be obtained in other ways, and if properly formulated may be expressed in simpler terms. They are in fact all dependent upon a single condition which can be realized under a great variety of circumstances. Men on free land may lack it, and men without any land often enjoy economic freedom because they have it. *Labor is free where there is a complete power of substitution.* It is the doing or not doing, consuming or not consuming, being active or passive at will, being social or not social, that constitutes freedom. Economic freedom is secure where the substitution of activities and enjoyments is possible. If a workman cannot withdraw from the productive group of which he is a member, he is not free, no matter what his income is. He must have the right to cease production and the power to enter other groups; nor is a right to support necessary. A laborer's own productivity can secure a store from which he may subsist while not at work, if his liberty of action has not been previously infringed; nor does economic freedom demand that the alternate occupations shall be equally profitable. The power to secure other work will guard his income so long as it is effective.

In consumption, also, the power of substitution is

equally necessary. It is the one supreme condition to economic freedom involving all others, and no individual can maximize his pleasures without taking it into account. No one is free who lives on one food, has but one form of amusement, or has the form and time of his leisure set for him by his situation or social condition. The sources of activity lie in the enjoyments open to men, and if the power of substituting one pleasure for others is taken away, the loss of liberty is as complete as if the freedom of action were denied. The greatest of slaves are those held in bondage by their pleasures.

So long as this power is complete, groups of producers are organized in a natural way, and each workman secures the full product of his labor. He can withdraw from a group if it offers less for his labor than other groups, or he can retire from production if the return is less than that coming from non-economic activities. A freeman enters productive groups to increase his pleasures. He should always be able to withdraw from complex forms of production, and put to the test the capacity of the higher civilization to give him more than he obtained from the simpler primitive state where a condition of spontaneous activity played a more important part. Nations pass naturally from the less to the more complex forms of production only when the latter give the greater return, their progress being tested by the relative increase in productivity, a test that should be open to individuals. There is a national as well as an individual loss when laborers work so long in a direction opposed to their desire that the net return in pleasure is reduced. Economic freedom will prevent this waste and keep the surplus of

pleasure at its maximum; and it will also give to each individual the result of his own productivity and prevent any aggression or usurpation on the part of individuals or of productive groups.

The group can always test the productivity of any member by working for a time without him, thus proving that it is to the interest of the group to give each member what it loses by his absence. No one can secure more than this amount because the other members will in this case refuse to work with him. Each laborer would choose that opportunity for labor where the surplus of pleasure was greatest, and if his product was wanted, he must be compensated, not only for his costs, but also for the surplus of pleasure which the possession of the commodity brought. If twenty units of pain would produce an article giving forty units of pleasure, a free laborer would not part with it unless the equivalent of forty units of pleasure was given him. Forty units of pleasure would have forty units of value, no matter how little it cost in effort. The value of each article would be measured by the loss of pleasure which its production caused and not by the pains of this production, and thus alternate pleasures would determine each other's value.

It is only under more complex social conditions that costs enter as the measure of values. Men must lose their economic freedom before the definite relation of costs to values arises that is characteristic of slave economies, as when a horse is fed oats and worked until the energy created by the food is exerted for the good of its master, or a slave is put under the lash to make him render a full equivalent for the food he gets. The

same condition prevails where wages are just sufficient to keep the workman alive, forcing him to work from necessity and not from choice. Necessity is the measure of his return, and this is secured when costs and pleasures are equal. Costs therefore mark the lower limit of values and become a standard when the exploitation of laborers is so great that they would be crushed out of existence without some material check to its pressure. Even here values can be measured in pleasures, and under all other circumstances they must be. Freemen compare pleasures; only the product of inferiors is estimated in terms of pain.

Exploitation.

Under the conditions stated, a simple society of freemen would grow up with the activity of each person determined by his own productivity and the nature of his interests. As the complexity of the social organization increased, rules and customs in the interest of all would grow up naturally. The egoistic interests of each member of the community being in harmony with social order, and impelling an obedience to all regulations that furthered the public welfare, other supports of morality would prove unnecessary, for self-interest would be synonymous with public good.

In spite of these tendencies to create and perpetuate a simple society, it is doubtful if such a society in any developed form ever existed, for even in the earliest communities there were forms of usurpation and oppression, showing the existence of some counteracting forces that the previous reasoning has not recognized. The lack of economic freedom shows itself in a condition of exploitation, in which the power of substitution is curtailed or destroyed, with the result that the exploited

get less than they produce, while the exploiters get a corresponding degree more than their productivity.

The source of this exploitation is usually found in the power, energy, and intelligence of the dominant class, which, we are told, profits by the grinding down of the weak and helpless to a condition of poverty, rendering them unable to withstand the aggression of their superiors, the exploiters, who hold the political power and use it for their own ends. It is claimed, therefore, that there is no hope of economic freedom until the power of the ruling class is curtailed and the doctrine of political equality asserted; and to cover the weaknesses of this argument, the source of exploitation is also said to be found in property differences, the lack of capital disabling laborers in conflict with their employers, and compelling them to accept a minimum wage barely sufficient to sustain life.

These and similar explanations are plausible so long as the attention is centred on the motives and actions of the exploiters; but why does the exploited consent to the exploitation? This question increases in difficulty when we recall the fact that the number of the exploited is much greater than that of their oppressors. Two men might compel one man to work for them, but even then it would probably be more for their interest to work for themselves, as their own productivity would be greater than that of their slave. But granting that they would prefer ruling to working in this case, it is not typical of the common forms of exploitation.

Not among laborers only is the phenomenon manifest, but among all classes of society, for everywhere people are working for the continuation of social con-

ditions that deny them the full return of their labor. A typical example is the case of women, who, as a rule, not only get less than their full productivity, but are ardent opponents of the very changes by which the return for their labor would be secured. When we reflect also upon the fact that opposition to economic independence and equality is not confined to the lower classes, where it might be expected, but is characteristic of those who have adequate power to make all desired changes, we realize that the phenomenon is too general to be explained by the greed of oppressors.

An egoistic society could be maintained if primitive men always remained in the same environment and were not subjected to outside influences. At least it is in such societies that these tendencies come out most clearly and continue for the longest time. Isolated communities and mountainous regions difficult of access furnish the best example of societies moved mainly by egoistic principles. Such societies usually break down or are transformed into different societies as soon as the isolation ceases or new ways and goods are introduced. This inductive proof that simple societies are due to the continuation of the same environmental conditions is strengthened by deductive proof as soon as the nature of environments and the effects of changes are investigated. In a simple environment a system of morality grows up that helps the inhabitants to adjust themselves more fully to it. I use the term morality in the broad sense of earlier usage, including all customs, traditions, habits, laws, and institutions created by men for their mutual advantage, the reacting influence being moral as contrasted with purely

physical agencies. In morals, then, are included all useful rules and regulations that help men in increasing their pleasures and in lessening their pains; all adjuncts to the process of maximizing pleasures. The more moral the community the greater is the harmony between it and those external forces upon which welfare and survival depend. Thus egoistic tendencies force men and societies to become moral, and in a simple long-enduring environment there would grow up laws, habits, and traditions, by means of which the well-being of men is kept at its maximum. When, however, this community changes its environment, it is in an anomalous position. It has a code of rules created by one environment and a group of needs and activities prompted by another, with the result that the forces of the two environments are not in harmony. The traditional code of the first environment impels the people to act as though they were still in it, while the new wants and motives in harmony with the second environment demand for their full utilization actions and conduct that in the old environment were plainly injurious and hence immoral. If the traditions of a nation could be readily changed, this difficulty would disappear, as a new code would be created in harmony with new conditions, through which an adjustment to the new environment would be worked out. But there are powerful obstacles to these changes; the various parts of a traditional code depend for their vitality not merely on egoistic motives but also on psychic and physiological principles. Imitation is quite as powerful in the continuation of habits and customs as are the original motives creating them, for men do readily and easily what they are accustomed to do.

When habits are formed, succeeding generations continue them with little examination into their causes and purposes. Motor reactions are created impelling people to follow in the activities of their ancestors, and these motor tendencies continue after the situation is so changed that other forms of activity are more advantageous. Particular kinds of food, clothing, and climate make physiological modifications in the inhabitants of a region so that they are adjusted to these conditions and suffer severely if they are compelled to change their location, seek new food, and encounter new difficulties. Each new situation thus forces men to cease certain habitual imitations, to discontinue certain motor reactions, to stop using certain foods, and to make other changes out of harmony with their psychic and physiological impulses, thus continuing an everlasting struggle between men's egoistic motives and their acquired psychic tendencies.

It is this state of affairs that makes the social forces in a second environment different from what they were in the first environment to which a race became adjusted. Simple egoistic tendencies would create the original adjustment and the code of morals that resulted from it. But in the second environment the imitations, motor reactions, and physiological changes resulting from the first adjustment interfere with the free play of the egoistic forces of the second environment. Each new environment would naturally create a new morality fitting new conditions. Now, if environments and codes of morality began and ceased together, that is, if the duration of environments and codes of morality were the same, the egoistic forces of each epoch would have

free play, and simple economies would prevail even in the most complex civilization. But environments follow one another rapidly, while moral codes are modified with difficulty. There are no forces to keep men in an old environment if their interests impel them to leave it, while the same interests cannot force men as readily to set aside a code of morality which certain psychic and physiological forces keep in its place. Environments, therefore, change more easily and have less duration than the moral codes they create. The social phenomena of societies that have passed through many environments are, therefore, different from those of simple societies created by early conditions.

As can be seen, these facts have important effects on the mental attitude and productivity of men. They become satisfied with the environment, to which they have become adjusted, and, pleased with their traditions and institutions, they adopt an optimistic attitude toward everything essential to their present welfare. If in any way they are in touch with an outside environment better than their own, they acquire a dislike for those goods, habits, and modes of living not in harmony with their own regions. Further, each region loses by death or migration those not suited with its conditions, and thus the traditions and customs of the region not only make men pleased with what they have, but make them dislike what they do not have.

These inclinations and prejudices are useful so long as the environment continues. But when the race moves to a better region or the locality is improved by the introduction of new methods of production, the people have a distaste for the pleasures and activities

that the new conditions favor. They strive to continue the conditions and mental attitude of the old environment, and aided by tradition and the psychic reactions it has created, they live on in the new environment without the changes that their egoistic interests prompt. More is produced than the habits of the community permit it to enjoy, and so in order to prevent waste a more complex form of society is superimposed.

These, then, are the social conditions favorable to exploitation. One class has more than it wants or at least more than its social customs and traditions permit its members to enjoy. The extra productivity of the new environment is not regarded as a benefit, for it tends to break down inherited customs and to introduce extravagance, luxury, and dissipation. The moral tone of the community is opposed to this extra productivity, and its exponents strive to force the nation back into the old conditions with reduced productivity, or they suggest means of expending this extra income in ways not opposed to established usages. Such a nation offers an alluring object for conquerors, who appropriate this new surplus without encountering much opposition from the conquered, for they do the community a service in maintaining the old morality; while the conquered remain satisfied, or at least passive, so long as the oppression of their rulers does not reduce their economic welfare below the limit insured them under the old conditions.

The motives and conditions bringing races into contact with one another and creating mixed societies are complex and in many cases difficult to trace. I am seeking not for them, but for the causes explaining

the voluntary subjection of conquered races. If exploitation did not come naturally, it could not come at all, or at least it could not continue for any length of time. But when certain forces work to prevent a people from enjoying the full return for their labor, these forces supplement the interests of conquerors and help to create social conditions promoting exploitation. Early systems of morality inculcate a spirit of resignation and asceticism, and create an optimistic tone that makes present ills bearable. Certain doctrines, such as that new forms of consumption are luxuries and indulgence in them is not only immoral but sinful, help to adjust a people to an environment, and become the necessary means of making them content with a bad situation. Primitive races could not exist without such doctrines, but when a better environment is entered, they are checks to its full enjoyment, and are ready means of fastening upon a nation a dominant class which consumes the extra produce rejected by the moral code of the subject class.

Exploitation is thus not a phenomenon of retrogression, but of progress. It is the natural consequence of a movement from a poorer to a better environment during the period when the free play of egoistic forces is prevented by the code that helped the people in their adjustment to the earlier environment. The real source of exploitation lies not in political causes nor in competition, but in old traditions, habits, and prejudices. Had not antecedent conditions created contentment in bad environments, exploitation would be impossible in better situations. Political power may continue what tradition has created, but it cannot take more from a subject race than the new environment adds to their pro-

ductive power. The causes of exploitation antedated the conquest and are not even strengthened by it. In a primitive society, for example, a band of roving men could capture and hold wives secured from neighboring tribes; but this fact does not account for the ready manner in which women submit to exploitation; for if they in the earlier social state had not been accustomed to self-sacrifice, their opposition to their new condition would have prevented the new form of society from becoming permanent. The needs of children developed self-denial in the earlier state in which women were free. It was, therefore, the ideas and habits of women, and not the power of men, that induced them to accept the new situation, gave to men the increased productivity arising from the new social state, and helped to perpetuate psychic reactions and physical peculiarities that the new conditions could not have formed of themselves.

Adhesive adjustment.

For each animal, man, or society the environment is not all nature but a definite group of objects, the presence or absence of which affects the immediate welfare. Adjustment then means the utilization of a few concrete objects upon which survival depends. Each plant can exist only in particular soils; insects die if deprived of peculiar sorts of food; a cow needs food, but it must be in the form of grass; the lion, the polar bear, and the bison thrive only in regions with peculiar climate; men, too, at given stages of progress demand particular kinds of food, need certain forms of shelter, and are confined to places with given climates. Food, clothing, shelter, and other necessities are derived from the present surroundings of men, and their activities must be directed to their acquisition. Through these goods happiness is

attained and evils warded off. Adjustment under these conditions becomes a process of getting goods or of avoiding evils. Certain foods and other conditions of welfare become so essential that men narrow their activities to get them. When a struggle begins for their possession, the increased adjustment to the general conditions of nature is lost sight of, and survival depending on the acquisition of local goods, traits are developed that aid in the appropriation of these articles or places; and those customs and habits become necessary that help men to make better use of local goods. For each habit and custom there is an environmental cause, the supremacy of which compels men to act in harmony with its demands. Independent, self-prompted activity creates a breach between the individual and the local sources of his food and other necessities, making him liable to the danger of displacement by those who adhere more closely to local conditions.

In each isolated region men survive by the very closeness of their touch with nature, because for each local peculiarity some mode of action is devised by which its good is secured or its evil avoided. Men in this stage of development have a peculiar fondness for rules of thumb which meet the requirements of the field of observation, no generalization being carried farther than individual verification makes possible. A multitude of these local rules grow up, hemming in the activity of men and shaping it to the needs of the locality; rules which solidify into traditions that are hard to break from and which hold each person to the region in which he was born. If, however, compelled by stress of circumstances to leave home, he settles

in some new region and localizes himself as completely as before. In this way men have gradually wandered over all the earth, never rising in thought above the essentials of existence. They may become keen observers, but always lack the power of generalization which would free them from the tyranny of local conditions.

This adhesive adjustment must have existed many ages to have produced the mental traits that have persisted so long and from which most races have not been able to depart; but closely following or perhaps coincident with it is another form of adjustment, through which men form themselves into groups by which obstacles are surmounted, protection is secured, or goods are increased. Families, tribes, clans, and nations are formed, and the motives developed by which they are held together. All social organizations are parts of a cohesive adjustment; the church, the school, the army, the club, the trades union, — all get their force and their utility from the social bonds existing among their members. The cohering group has many advantages over isolated individuals, and can thus control favored localities, or reach out farther in search of food without breaking home connections.

There must have been ages of a fortuitous adjustment when merely accidental circumstances determined survival; ages in which men lived on what they found, and moved from place to place to secure the irregular supplies of food furnished by chance. The fickleness of character, the arbitrariness of notions, and the love of gambling and change, so commonly found even in civilized men, are abiding marks of this stage. An adhesive

adjustment follows this, or at least arises from conditions much more stable, such as a local food supply of a kind capable of preservation. Definite settlements are then possible, and with them begins the growth of that inclination to cling to soil and place that accounts for the characteristics of an adhesive adjustment.

Of this stage history gives us but an incomplete account, as the people belonging to it did not write histories; nor is their life made up of striking events, as is the case with the struggles and conquests incident to a cohesive adjustment. It was probably at its best just before the dawn of history, when the desirable parts of the world were filled with closely aggregated but slightly connected groups of individuals, at a time when tradition and imitation were at their maximum; a time when it was not likely that such disturbing elements as the struggles and dominance of cohering nations were introduced. Illustrations of adhesive adjustment are furnished by the village communities of India and China, where the earlier conditions seem to have continued with scarcely any modification; but in all civilizations remnants of this stage exist, and from the conditions it gave rise to come many of the popular ideals of the present time. The independent farmer, the mountaineer, the peasant proprietor, the small trader, the free artisan, and other types of isolated producers have the dominant traits of an adhesive adjustment. From Aristotle to the present time these types have been idealized. The freedom and independence of adhesion have been placed above the efficiency, energy, and comfort of cohesion.

Cohesive morality.

An adhesive adjustment is concrete, and puts each person in direct relation to the local situation upon which

his happiness depends, and from which his pains arise. He needs or must avoid particular objects, and the having or avoiding these determines his welfare. Adhesive morality thus consists of rules derived by observation from this local environment, where each necessary object is the source of one or more rules of thumb that become embodied in local customs. Actions suited to them become fixed as habits which through imitation descend from generation to generation. Selfishness is a product of these conditions. Where the environment affords but a bare living, the individual energy can be sustained in no other way, for each individual must have a certain amount of nutriment to enable him to live. There are fixed limits above and below which the amount of food cannot vary without so serious an injury to the individual that his power of survival is impaired. Under-nutrition causes starvation, leads to disease, intensifies struggle, and forces to the wall those whose efficiency is too slight to cope with existing competition. It acts, therefore, as an elevating force by cutting off the less productive part of each struggling community. Over-nutrition has equally important effects, for persons who indulge too freely lower their vitality and become subject to peculiar diseases and vices. Dissipation and over-indulgence are as potent in cutting off the more productive class as under-nutrition is effective in cutting off the less efficient. There is thus a natural force cutting into society from above as well as one cutting in from below, subjecting both the strong and the weak, the rich and the poor, to peculiar difficulties from which the normal person is practically exempt.

It should be noticed that the path of progress lies

along the line of complete nutrition; each person must reach this line in order to live, but all who cross it are eliminated by dissipation and degeneration. The only road to progress, therefore, lies through such modifications of the consumption of individuals as to render their fullest endeavors just sufficient to secure complete nutrition. Each change in the productive power must be accompanied by a corresponding change in consumption, or the field of under-nutrition or over-nutrition is entered. To such a state of things there is but one outlet — and that outlet is vicarious consumption; in other words, if a man gets pleasure in the welfare of others and seeks in this direction an outlet for his surplus energy, he avoids both over-nutrition and under-nutrition. In competition with others he survives because of his greater energy, while in the consumption of what he has produced, he is saved by his greater altruism. A man becomes normal to these new conditions only by doing more for his companions and using his energy in their behalf. Surplus energy thus finds a social outlet, and is the base upon which social relations rest. If productive power is increased, external interest must grow, or the individual ceases to be normal and becomes liable to displacement through dissipation. Altruism is thus the complement to increased productivity and must grow as energy and vitality increase.

To put this truth in a reverse form, each increase of altruism leads to some form of asceticism, by which individual wants are reduced and simplified, or to a greater display of energy through which the goods needed for the welfare of others may be supplied. In early societies, with harsh external conditions, social

progress thus depended on asceticism, on which stress was laid in all early moral codes because in this way most of the surplus was obtained. In later times, where the environing conditions have become more favorable, men seek through an increase of energy to secure the funds needed to supply their unselfish impulses. The growth of temperance, public libraries, good roads, concerts, and art galleries are signs of the pressure which inexclusive consumption is exerting on all men who remain normal under the better conditions of modern societies. It is easier to do more for others than to repress individual desires, thus creating a gospel of activity which in a large measure displaces the old ascetic code. Altruism is thus a normal product of a cohesive society. The struggles which promote cohesion force nations to break away from local conditions and transform them into a dominant element in the more complex societies that follow conquest. Through exploitation or through an increase of productive power, a larger income passes into their hands, an egoistic use of which would lead to dissipation and degeneration. A flow of income is thus started from the dominant to the dependent class instead of, as is the case in an adhesive adjustment, from the dependent to the dominant. Altruism begins as a love of others within a group. The father who supports wife and children has an element of altruism in his nature, even if he follows a rule of selfishness in his dealings with others. A feudal lord who supports a thousand retainers is altruistic even if he is brutal to outsiders, for he promotes cohesion by a flow of income from himself to them. An aristocracy is also generous to the weaker of their class, although

they may be very exacting of outsiders. The same tendencies show themselves in all cohering classes or groups. Within the group there is always a flow of income from the stronger to the weaker; but for this partial equalization of income the group would soon fall apart, the strong sinking into dissipation through the superabundance of income, and the weaker being forced to the wall or compelled to sacrifice group interests to save themselves. When the energy and forethought of producers are intensified, the flow of income from the more to the less productive must increase, as dissipation is deadly to those who try to spend their incomes on themselves. The groups in which men are interested become larger and more intense, and with this change a larger part of the total income of society is set aside for common or at least for less individualistic ends. Hospitals are established; schools are made free; colleges are endowed; museums, libraries, and art galleries receive liberal support; church funds grow, and missions are formed at home and abroad; all these and many other activities show the growth of cohesion and the flow of income going with it. An energetic cohering nation cannot endure except by changing the direction of this net flow of income, for it is a condition to normal growth and the essence of all progress; exploitation continuing only where abnormal conditions have prevented the natural transformation that comes through the increase of vigor and efficiency.

The decline of exploitation.

If the causes of exploitation have been correctly presented, the conditions for its continuance and ultimate removal are apparent. The mental attitude necessary to survival and contentment in a poorer environment

are the sources of exploitation in a better one. As has been noticed, the extra income due to industrial progress thus passes readily into the hands of the more progressive classes, who perpetuate a state of affairs favorable to themselves through an emphasis of the moral code of earlier times. Instead of oppression being the cause of exploitation, it is usually responsible for its decline. To preserve a subject class, the conditions to which they are accustomed must be continued; for with the destruction of these morality declines, and the class disappears through dissipation and vice. The most complete and longest-enduring scheme of exploitation would be that relying wholly on tradition for its perpetuation, as oppression and political changes of any sort hasten the end of the condition they are designed to further. If tradition does not cause men to continue their earlier mental attitudes, nothing else will.

The purely egoistic forces have many ways in which to operate, slowly forming a new equilibrium in harmony with new conditions. One manifestation in modern times is a steady lowering of the birth-rate. Egoistic forces in full sway bring population to a stationary state, and then the need of laborers increases the incomes of the laboring class until the exploitation ends. The rapid rate of increase of population in early times was due partly to the high death-rate, for if families had not been large, population would not have been kept up. Every betterment of economic conditions demands a lower birth-rate to restore an equilibrium, and in time this would be brought about by physiological changes making the race less fertile. But egoism can effect the change much more rapidly by changing the mental

attitude of men toward marriage and the care of children. A loosening of the marriage tie and a consequent reducing of the birth-rate mean that there are fewer individuals to arrive at maturity; so that immorality can check the increase of population, even if there were no physiological tendencies striving to create a new equilibrium.

Egoistic forces are aided by dissipation in many forms, industrial changes creating new forms of pleasure that are not restrained by the older moral code because they were unknown or slightly important when it came into being. Also in new situations it is easy to break loose from the old restraints; and the mixing of population brings every one in contact with forms of vice not known in his own locality. The lowest classes thus lose their morality, and are subjected wholly to the pressure of egoistic motives, which may have some effect in keeping them out of the worst forms of vice, but will not become effective until the earlier code is subjected to a severe strain, and put more in harmony with the new conditions. Egoistic forces are stronger than those due to primitive habits and customs, and must in the end destroy the mental attitude necessary to make exploitation possible, although they are not the sole cause of its decline.

As we have seen, the interests of the dominant classes are promoted by exploitation only when the productive power of society is small, for they then in order to maintain their standard of life need to have their own income supplemented from other sources. The only unearned fund available comes from exploitation, and it must continue until other sources of surplus are

available; but as land increases in value, it is profitable to improve the conditions of the laborer so as to increase the rent derived from it. The higher the price of food the more important is the rent, and the less important is the fund secured by depressing the condition of the laborers. When the workman is given a greater part of the product, he is induced to work more energetically, and thus increase the amount of rent more than the amount of the exploitation fund is decreased. The landlord thus ceases to be an exploiter in order to become a greater consumer of the social surplus. With progress, therefore, he consents to changes in the laborer's conditions; serfs displace slaves, and finally free laborers are put on the land with the consent of the owner. When the rent of land becomes more than its whole productivity under earlier conditions, the landlord's interest in free labor is as great as that of workmen; for a rising price of food and raw material brings the interests of landlords into harmony with those of society.

This interest in free labor increases as soon as productive capital comes into use; for it is more perishable than land, and to preserve it a higher class of labor must be used. Land is not capable of increase, while capital is; as a result the laboring class must also increase to keep it in use, thus making capitalists interested in the amount of population and the productive powers of laborers to an extent that landlords never are. As soon as capitalists become a dominant element in society they do away with many primitive regulations that depress the condition of the workman, and with this change many of the cruder forms of exploitation disappear. With the

introduction of machinery the capitalist's interest in free labor is further augmented; mechanical laborers are displaced, and as they disappear the standard of the laboring classes rises in an inverse ratio. Employers discover that a high class of laborers is more productive in proportion to their wages than are those of the lowest classes, and they also discover that temperate habits and regular ways of living exert an influence on productivity.

The interests of the two classes are thus brought sufficiently into harmony to make employers willing to give to each class of laborers their full product. If this result has not yet been worked out in the United States, it is not because the capitalist gains less by the increase of productivity than he loses by the extra wages needed to call it forth. The delay in the recognition of this principle is due partly to the holding over of ideas that originated in earlier epochs, and partly to the immigration of workmen from regions where the older régime has not yet been wholly displaced. Employers are inclined to exploit laborers far more than their interests demand, while the latter still suffer from competition with workmen coming from regions with lower standards. However, these facts, bad as they often are, do not represent permanent tendencies, for the pressure of self-interest on both classes will remedy these evils, and create an equilibrium making the laborers free and giving to them their full productivity.

The reconstruction of old customs and habits is extremely difficult, but a society that is not capable of the task must decay, for history shows that nations disintegrate as soon as the egoistic interests of men become

predominant. If history also shows that exploitation is present in all nations, it is not because exploitation is a permanent feature of civilization, but because there have been a series of nations of which each has gone through certain preliminary stages of progress and then fallen into decay, to be displaced by new races that met the same difficulties and in turn failed to solve them. To say that exploitation is a necessary stage in social progress is different from saying that it is an enduring part of national life. It may be impossible for a capitalistic economy, such as that we are now entering, to overcome the difficulties that beset it; but if it does succeed, it must eradicate all forms of oppression. In time, economic freedom is sure to assert itself, and with it will come a new group of restraints that will keep men in touch with their economic conditions without depressing their individuality.

Social integration.

An unfavorable environment keeps men in close touch with it. Those who lack the physical qualities demanded by their situation, as well as those who are dissatisfied with their condition, their food, and other goods, are ruthlessly swept away, and their places are filled by those contented with their present lot. A state of nature puts a ban on pessimism by quickly displacing the discontented or despondent, those who violate social traditions failing through their lack of conformity to natural conditions. In itself a rule of conduct has no force; the real force lies in the elimination of those who violate it. Primitive morality is a danger signal which no one can neglect without feeling the effect of the eliminating process, and it is a social necessity so long as these conditions continue. So long as this

force operates naturally, there is social integration; men grow into a common likeness when a harsh nature cuts off all that differ from the one necessary standard.

If a race migrates into a better region, or its social condition is improved by an advance in civilization, its morality and traditions remain, but the elimination back of them ceases to act. New types now find means of persisting, thus destroying the solidarity of earlier times by repeated differentiations from the old type. This lack of harmony ends social discipline, because the only support of the old morality falls away when the process of elimination ceases to enforce it. An arbitrary elimination affecting the individuals of all classes alike cuts off no class or type, and many variations have an equal chance of perpetuation. The elimination making for social progress must displace whole classes, thus forcing society to move in a particular direction. Class after class of the unfit is then cut off, and the surviving portion to an increasing degree acquires the same qualities and habits. To enforce social customs and traditions, a natural elimination is necessary, and without it morality soon becomes a dead letter. The only social safeguards are natural standards and a natural elimination enforcing them. Whatever destroys a close contact with nature makes elimination arbitrary, and hastens social disintegration.

Men may be said to be naturally exploited when the conditions of existence are so harsh that no one with less than the maximum income can survive. They are socially exploited when an increased income is prevented by class or race struggles. The naturally exploited will be frugal and contented, for they have a natural elimi-

nation in operation, cutting off all the dissatisfied and abnormal. But the socially exploited have no elimination of the discontented or of those out of harmony with the dominant type, because conditions external to them instead of their own qualities determine survival. It is then that the dissatisfied, the pessimistic, the abnormal, and the vicious have opportunities equal to others and by tainting society with their peculiar views disrupt it.

If an income of fifty cents a day is the maximum, all who are dissatisfied with this amount perish. But if the natural rate of wages is eighty cents, while the real rate remains at fifty cents, it is not natural conditions, but the notions of a dominant class that decide who shall be eliminated; and the conditions of elimination thus being arbitrary, the dissatisfied and vicious remain to disrupt social bonds. If, however, the rate of wages rises to its maximum, a natural elimination once more promotes social integration. Those who are dissatisfied with eighty cents a day are eliminated in the same way that those demanding more than fifty cents a day were displaced in the earlier society, while those who get the eighty cents and use it badly are cut off by dissipation. There is now a single mode of life that fully meets the conditions, and those who do not adopt it perish through a natural process. A new social discipline will spring up, and those who accept it have an advantage of which they cannot be deprived.

No matter how high the natural rate of wages, these forces make elimination definite. If wants increase more rapidly than productive power, the man with two dollars a day is farther from a complete satisfaction of his wants than is he with only a dollar, the pressure

from the insufficiency of income growing with each increase of the standard. This pressure makes the contact between men and their environment closer, and puts at a disadvantage those who cannot secure the completer adjustment. The inefficient and less active are eliminated, and society is integrated by the fact that the survivors have to a greater degree the same faculties and impulses. Each elevation of social standards, augmenting the pressure of the insufficiency of income, makes the surviving type more definite in its characteristics, and puts those lacking these common qualities at a greater disadvantage. A natural rate of wages and a definite elimination decreasing the differences in men have common causes. Any standard lower than the natural makes survival depend, not upon superiority, but upon the fancies of some superior class, the general adjustment of laborers to nature counting for little if men, not nature, decide who shall get employment. Qualities not affecting survival have no force back of them by which they are perpetuated and made universal. An arbitrary selection based upon conditions objective to the class among which it is going on can be prevented only by a rise of wages to the natural rate. The relation of each worker to nature is again restored, and a definite elimination once more tends to unify society.

A single integrated type of men in a given environment have individually the same relations to the environment as if there were but one man in it. Each one has in him all the qualities needed for the adjustment of the race to it and is in the same position that the isolated freeman was in primitive times. All are adjusted to nature; for each increase in the pressure of wants

makes elimination more definite while through it the moral code becomes more forceful and throws about them additional safeguards. There is no substitute for the educational effects of a direct contact with nature, and it alone can bring out industrial qualities and cut off those who do not possess them. In advanced societies, the form of contact with nature is modified, but its essence is not altered.

CHAPTER II

Income as Increased by Adjustment

Mental adaptation.

Adaptation is effected either by changes in the physical man, in the relations of men to nature, or in the rules of action that become embodied in morality and tradition. It is connected primarily with nutrition, which leads to a growth of function and of the power of assimilation. While the least adapted, hampered by under-nutrition, are killed off by starvation or disease, over-nutrition is equally deadly to those whose productive power permits indulgence in ways that weaken the physical man. For those who avoid these extremes there is a growing economy of assimilation and an increase of function which give to the survivor greater activity and an ever increasing adjustment to his environment. The round of production and consumption thus becomes less wasteful and the social surplus is better conserved.

These changes, however, are merely one phase of adaptation. Along with them go others of a psychic nature by which states of pain are transformed into states of pleasure. Pain is the record of a failure in adjustment and reveals some obstacle in the way of success. In a life where every step is a struggle against all manner of difficulties, against disease, against one's own kind, and against other species, the law of nature provides a tragic end for every animal. It must develop energy enough to remove obstacles or to circumvent

them. The earliest and simplest road to success was through the passions which sprang up when obstacles in the environment could be removed or destroyed by a direct attack. But when obstacles cannot be overcome by direct opposition, desire appears and develops mental traits in favor of indirect methods of approach. It begins with some weak manifestation, and gradually grows until its strength compels action. Then it disappears through satiety only to reappear and to increase until it is again dominant. This constant recurrence of antecedent conditions develops memory, imagination, and reasoning. Memory, calling up the results of past experience, permits the adoption of methods that involve the least danger, and thus develops caution and prudence. When action becomes imperative, some plan of indirect attack has been devised that increases the probability of success.

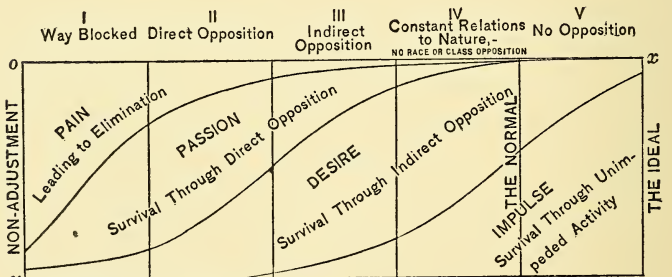
Desire, however, is not a final stage because it does not indicate complete adjustment. The presence of obstacles to be overcome indicates a lack of adjustment between the individual and his environment. There is also in desire some element of pain, so that in spite of the intensity of its pleasures, desire goes with passion and pain.[1] The greater and more persistent the obstacle, the stronger must be the desire before means for its satisfaction can be successfully carried through.

Where the relations of men to the environment are constant and no opposition to the attainment of ends exists, unimpeded activity becomes possible. There is a direct association between each end and the activity by which it is reached. The impulse to do receives no

[1] Ward, "The Psychic Factors of Civilization," page 50.

check, nor do obstacles force the use of intermediate steps. This is the final stage of adjustment in which no opposition or element of pain disturbs states of unalloyed pleasure. Impulses are the motives that prompt this complete adjustment.

In the diagram the relative importance of these stages is indicated by lines drawn from left to right. Pain, dominant in the first stage, gradually decreases in amount until in the final stage it is but little more than a potential force. Passion becomes prominent in the second and desire in the third, only in turn to be



dwarfed in importance by newer forces that indicate more complete adjustment. While passions might be lost and pains might become merely nominal, desire cannot disappear in an environment like our own where so many irregularities prevent complete adjustment. Impulses demand constant relations, and can displace desires only in a perfect environment. In the transition from pain to passion the more active get an advantage that displaces opponents and opposition, for sluggishness in contest means elimination. In the transition from passion to desire a love for the rational

gets the first place, while in the change from desire to impulse, the ideal becomes the great moving power.

Activity is the blind outlet of surplus energy, with no other end than the pleasure its exit gives. The rational and the ideal, though they reach it in different ways, have the same goal — perfection. In cases of partial adjustment the normal is the perfect in terms of desire. It is the regular constant act contrasted with irregular exceptional acts that special conditions necessitate. The normal is thus the present environment in its simplest form. It can, however, never free itself from the conditions of partial adjustment. Where men reason there is pain and non-adjustment in the background. Impulse, however, moves directly away from pain, giving the perfect with no pain associations, and creating the complete adjustment that has no costs nor fears. Surplus energy stimulates impulse, and between it and its object there is no bar, obstacle, nor check.

The normal, from another standpoint, is the useful, that which to the greatest degree avoids pain and prevents elimination. The desire for useful objects causes energy to go out, not in pleasurable directions but in those that give a return of useful goods, and thus creates a diversion and reduction of energy. Where the desires are strong, the output of energy in creating the useful has been forced to take unnatural directions. The force of desire is thus the measure of the deviation of energy from its most pleasurable channel, and the satisfaction of desire is the reward for this deviation and loss. This loss is prevented or reduced in amount by mechanical action; for every motor reaction, association of ideas, habit, custom, or other economy of

mind and matter reduce costs by making the useful act more nearly a pleasurable action. Economy, inventive reasoning, and other devices have as their end the satisfaction of desire without pain. The useful thus becomes the pleasurable by every increase of routine.

The pleasurable, however, is not primarily the object that satisfies desire, but the activity that affords an outlet for surplus energy. With increasing energy there is a demand for more avenues of exit. The impulse to do is therefore toward varied action instead of toward concentrated useful action. The pleasurable seems to be the useless and often is so in restricted environments; but that which is useless — a mere expenditure of energy — may become the useful by a change of situation. The impulse toward the pleasurable induces men to change environments — to seek the place where the pleasurable is the useful. The desire for goods, on the other hand, forces men to become mechanical and economical, that is, to put themselves in a situation where the useful becomes the pleasurable through the decrease of costs and the increase of satisfactions.

Each of these roads leads to perfection though in a different way. The normal is the goal of desire; the ideal is that of impulse. Desire demands changes in men by which the useful may become the pleasurable. It creates habits, routine, and mechanisms, and thus increases the adaptation of men to particular environments. Impulse alters the environment so that the pleasurable becomes the useful, and thus develops nervous centres, motor reactions and new avenues along which surplus energy may expend itself. There is always a new norm back of each desire, and a new

ideal in each increased breadth of the expenditure of energy. In either case there is mental adaptation, and men in thought and activity approach more nearly the goal that perfection demands. The normal and the ideal become one in the final stage of progress.

Impulse.

In the foregoing analysis the meaning and place of pain, passion, and desire are readily seen. The use of impulse is not, however, so clear, for it has been used in a way that suggests a variety of meanings among which a common thought is apparently absent. It has been spoken of as a movement away from pain, as a flow of surplus energy, as a pressure creating adjustment, as a social force, and as a pressure to make ends instead of satisfactions the motive for living. The confusion, however, is more apparent than real, and with a little care the thread of the argument can be followed. The changes that seem inconsistent are really changes not in the use of the word, but in the conditions under which the surplus energy of men goes out.

In the round of consumption and activity goods are transformed into utility, utility into energy, and energy is expended in production, replacing the lost goods and starting a new round of consumption. Impulse is the psychic feeling accompanying the outgo of energy. Desire is the feeling accompanying the consumption of goods. From each of these sources come pleasures, motives, instincts, and habits, and from them in turn are derived premises upon which trains of reasoning are based. The reasoning based on desire has been worked out in the prevalent utilitarian philosophy, but no corresponding study has been made of impulse. There is, it is

true, a philosophy that naturally would seek this basis, but its advocates have insisted on the intuitional character of its ideals and premises, and thus have divorced it from the biologic and economic basis upon which utilitarianism rests.

Because of the evolutionary process men have acquired certain normal wants and activities. Particular goods are demanded, and the activities go out in fixed organic grooves to supply them. The normal man in a given situation tends to do the acts that create the goods he needs. If his energy is just enough to supply these wants, he remains static; but the evolutionary process being still at work, creates greater economies in structure, and adds to the knowledge and skill of men. The goods made under the new conditions are more than sufficient to restore the energy needed to produce them, thus making a surplus of energy the necessary result of progress. The normal man already has energy enough to keep active the developed powers of mind and body on which his normality and survival depend. This energy goes out in fixed channels and creates goods supplying the developed wants of men. The new energy, not being demanded by the conditions of present adjustment, is free to go out in new lines, to develop new activities, and to supply new wants. The exit of this surplus is forced into particular directions, because the past development of men has already supplied the energy needed in other directions.

Children furnish examples of how surplus energy finds an exit. Sport is merely a pleasant outlet for surplus energy. Subjectively all methods of exit are alike, but nature or society puts more obstacles to one method

of exit than to others, and thus forces sports to adjust themselves to the local conditions of time and place. Each season and each locality has its ways in which children satisfy their love for activity, and thus a regularity of action is attained which the mere exit of surplus energy would not of itself give.

The sports of children end merely in activity because the evolutionary process does not work on them. They survive through their parents, not through themselves. The surplus energy of men, however, has effects on survival because it develops faculties, thus giving a greater freedom of action than they would otherwise have. This freedom is primarily detrimental because it decreases the definite relations between men and the immediate environment upon which welfare depends. There is always some best way of acting when in contact with nature, and those who do not follow it have a penalty to pay. To get freedom of action demands a break with the environment and hence a loss of adjustment. Freedom is, therefore, primarily disrupting and creates distinct losses. In spite of this fact, however, it is advantageous because it forces men into new environments. Breaks with present conditions are bad from the standpoint of adjustment, but nations gain by them if there is a series of increasingly better environments into which men move when their present relations are disturbed. If a normal equilibrium is once created, the free energy of men ceases to go out as mere sport, but has its direction shaped by the nature of the external conditions to which adjustment is going on. Surplus energy thus becomes a definite force breaking with present conditions and pushing men along the

line of least resistance through a series of improving situations.

The normal of each epoch becomes the starting-point of new adaptations that produce a man normal to a new situation and with even more free energy. Aside from normal tendencies, men need only surplus energy to force them through every improving situation that nature permits them to occupy. Surplus energy thus moves men toward the ideal which will in the end be reached if no insuperable obstacle is in the way. Impulse naturally indefinite is given a fixed direction by the presence of these ever improving environments. It thus becomes associated with ends, and its strength is the measure of the distance men have gone from the normal of past adjustment toward the ideal of the future. The stronger the impulse, the more frequent are the breaks with the past and the more readily do men slip into new and more advantageous situations. Impulse is primarily away from the grind and routine of the past, but this routine once broken is made over into harmony with the new environment. There is thus an increase of adaptation and a growth of the social surplus giving more surplus energy and a greater power to break with present conditions.

When in these ways a better environment is entered, the old harmony between the desires and the environment is disturbed. The desires normally strong enough to induce men to surmount the obstacles to success, are too strong in the better environment. Men now have more energy or fewer obstacles, and in either case a more complete satisfaction of the inherited desires is possible. This leads to the over-nutrition of certain

parts, a waste of energy and a loss of physical vigor. The man normal to the new situation must have these desires reduced. To those who indulge, they become an evil leading to elimination.

Over-nutrition and the consequent indulgence lower the estimate of the self and the reaction against them leads to self-denunciation. The whole self or some part of it is looked upon as depraved. If the antipathy to self assumes a religious form, the doctrine of total depravity appears; if it assumes a moral form, the passions are denounced as vicious. In either case self-restraint becomes a dominant motive, and the self is pictured as lacking some of the qualities that belong to the normal man. There arises in this way a breach between the individual and the type through which it is freed from imperfections. The type is associated with the group to which a man belongs, thus raising it above the individual. Each person makes the model of his group a man like himself, but without his weaknesses and shortcomings. He thus creates a social standard above that of individual men.

There comes thus into existence a third category. Between the like and the unlike, the good and the bad, is the partly-different. It has the good qualities of the like but is without the imperfections of individuals, and becoming idealized is associated with the group to which a man belongs. This tendency causes men to have confidence in the group of which they are a part, and in their leaders, who when idealized, seem free from human imperfections. All recognized shortcomings are imputed to individuals, the type being raised higher by each contrast between personal weakness and group

integrity. A Christian must think of a Christian as better than himself before his religion becomes a social force. He then refuses to impute to the church the weaknesses and motives that he finds in himself or in other individuals. In politics, also, a man thinks of his party and its leaders as better than himself.

This idealization of the partly-different takes place in every field of social activity. Each instance of personal indulgence or weakness leads to the elevation of some type that becomes the norm of activity. The desire to associate with the better-than-self helps the individual to repress his passions and shortcomings. The contrast with the partly-different thus tends to elevate him and put him on a level with the ideal. The hero, the general, the king, the noble, the gentleman, the Virgin, the Madonna, the Christ, all have in them human elements, but each is without the imperfections found in individuals. Ideals raise the norm and depress the self. The bolder and more vivid they are, the more depraved the individual appears, and the stronger the motives for personal improvement. Self-restraint elevates the race and creates a confidence in its integrity and purity. It is a higher personality because it is the person minus his shortcomings. Men thus become absorbed in national life and in its various institutions. Each group is better than the individuals that compose it, and furnishes standards by which they are judged. A nation is thus not a democracy of equal individuals. The belief in a better-than-self is the binding element on whose ascendency the continuance of each social group and institution depends. Above each individual is the partly-different, the better-than-self;

below him is the different — the worse-than-self. Social conflicts are with the latter, while individual conflicts are with the elements in the self differing from the former. The feeling of depravity is a stepping-stone to society, the belief in total depravity being an over-emphasis of a quality needed by all social beings. Only the groups who feel it can participate freely in the higher forms of institutional life. Self-repression is group exaltation; it makes clubs, unions, clans, parties, and churches, and these in turn pave the way for the feeling of nationality. A simple impulse thus produces great effects. Men with a large social surplus cannot remain normal except through changes that impute to the social type a higher personality than that found in the self. Society is the better-than-self.

Impulse thus assumes three forms. Primarily it is a movement away from pain, but as a manifestation of surplus energy it is converted into a movement away from the local environment, the break with present conditions being more than compensated for by the better environment into which men move. This improvement disturbs the psychic as well as the physical adjustment, and makes some of the inherited desires too strong for present needs. These desires being a part of the self, a movement away from the self is made necessary by the change of environment. An indefinite impulse away from pain is thus transformed into a more definite impulse away from the environment, and finally into a very definite impulse away from the self. Surplus energy makes changes in all these fields, and forces men in the direction of the ideal in which there is no pain, no opposition, and no defect.

Idealism.

Ideals are places and concepts better than the real toward which the impulses of men drive them; impulses are surplus energy flowing out in a channel fixed by environing conditions. Surplus energy thus stimulates definite impulses that move men toward the goal of complete adjustment. When a man is completely isolated, the waste due to expenditure of energy just equals the nutrition obtained through the consumption of goods. An outlay of energy in excess of nutrition reduces the physical vigor; an excess of nutrition over energy causes degeneration and dissipation. When there is more nutrition than waste, an organism is anabolic; while in the opposite condition of more waste than nutrition, it is katabolic.[1] It cannot, therefore, be anabolic or katabolic except as it has a complement with the opposite tendency, as happens in sex relations. Males are katabolic, the energy expended tending to exceed the nutrition, while females are anabolic in that they tend to store up energy which subsequently is used in reproduction. Sex differentiation thus allows the males to be more energetic and the females to provide more fully for the young than if each individual maintained a strict equilibrium between waste and nutrition.

This tendency to perpetuate a katabolic predominance is manifest wherever complementary relations exist. Increased adjustment gives men surplus energy, and makes them katabolic. This would be injurious unless some complement existed that becomes anabolic as men become katabolic. Men and the environment, or men and society in its broadest sense, are complementary in this way. For individual men, society

[1] See Geddes's and Thomson's "Evolution of Sex."

comprises the totality of those external environmental factors adapted to their wants and needs. Their surplus energy can increase the waste from action more rapidly than nutrition for its repair, if social relations are steadily improving so that more is stored up to aid men in the future. The growth of capital, the cultivation of land, the erection of buildings, the increase of machinery, the making of roads, the construction of railways, the beautifying of cities, and other improvements make society anabolic, and thus allow men to become more katabolic. In an improving society each round of production and consumption leaves a slight surplus which, becoming energy in men, makes them more active; and in the outgo of energy the environment is improved so that more can be stored up for the subsequent use of men. The surplus is thus enlarged, more energy is generated, men increase in activity, and society stores up still more for subsequent use.

There is, therefore, a constant pressure to make men katabolic as society becomes anabolic. Since society in its most concrete forms is a group of places, it can be said that places become anabolic to the degree that the pressure of surplus energy makes men active. The katabolic man is the best man, and the anabolic place is the best place. Men, through evolution, therefore, lose anabolic tendencies, and places acquire them. These facts shape the ideals of men. Personal ideals are a union of katabolic tendencies; place ideals are increasingly anabolic. Men eject from their ideal of themselves anything that is not expressive of their energy. The hero is a doer, not a consumer. On the other hand, places are idealized for their stability,

permanence, richness, and beauty. They yield satisfactions, and restore the waste wrought in men by the intensity of their activity. Surplus energy is thus the source of the process of idealization, impelling men to be more active, and causing them to set up as an ideal a man more katabolic than themselves. To get a new equilibrium, places must be idealized in order that they may appear more anabolic than they are. Each increase of energy emphasizes this tendency. Men have always before them a more katabolic concept of personality and a more anabolic concept of places than they have attained or known.

Idealism is the isolation of anabolic and katabolic concepts wrought out by the pressure of surplus energy. Once started, the process cannot stop until energy is idealized as God, and society is considered the mother of all. These two, when isolated, represent the sum of katabolic and anabolic tendencies. The same contrast yields religion as opposed to science, and the man or individual as opposed to organized society. An ideal is not useful and hence cannot become normal unless its complement is developed to an equal degree. Definite ends are placed before men by the isolation of the anabolic from the katabolic. The initial tendency away from self is transformed into an endeavor to become katabolic, while the tendency to break with place and environment becomes a force that makes them more anabolic. Impulse in this way gets a definite goal as fixed as are the objects of desire. It is heredity expressed in activity.

Selection.

The process of elimination has no goal or end, but is simply away from pain. If the elimination is at definite

points social integration results, a clearly defined type appears, the energy is increased and a normal standard is formed by which individuals can be judged. Were it not for the increase of energy, the type and the standard would tend to remain static. As elimination cuts down pain, there is set free among the survivors a like amount of energy that can be used in new ventures. The normal activity is thus disturbed and a new equilibrium is worked out to meet the situation. Normal progress depends on the direction in which surplus energy goes, and if there is a law determining its output, the movement away from pain due to elimination assumes a definite direction and gives to progress a well-defined goal.

Activity is prompted either by desires or impulses. Desires grow until enough activity is generated to overcome the obstacles, and the pains of the process are offset by the pleasures of acquisition and satisfaction. On the mental side they force a concentration of pleasures and activities; and on the physical side they promote mechanical action and the economy of structure through which the pains of concentrated activity may be reduced. This concentration of wants and activities, forced upon men by the obstacles of a partial adjustment, reduces the pleasure both of consumption and activity. It is a well-known law that the increased consumption of commodities gives decreasing pleasure. Concentrated activity, likewise, is decreasingly pleasurable; it soon becomes mere work, and thus is transformed into pain. Desires consequently tend to decrease pleasure by forcing a concentration of wants and activities; and they would be an evil if their growth

were not due to an elimination that for the survivors reduces pain and frees surplus energy. But the loss through concentration is more than offset, because the units of commodity, while giving less pleasure, are increasing in number.

Physical adaptation ends in an economy of structure and a concentration of wants and activities. The habitual acts of men draw off considerable energy, and are the first tax on it, all energy less than the ordinary amount being directed to these conventional channels. Surplus energy, however, seeks new channels, creating new motor reactions and new wants of increased urgency. Increasing vitality goes out in new lines and creates new powers and satisfactions, while decreasing vitality dwarfs the new powers and concentrates energy in the older channels of exit that have become the lines of least resistance. Here the law of decreasing utility acts, because additional units of commodity supply wants that are already partly satisfied. The wants created by surplus energy have no such limit. Each addition to the fund of energy going out in new channels encourages new activities and supplies new wants. There is thus a natural pressure to do new things and to consume new articles. Only the presence of obstacles and pains forces a concentration of wants and activities. The newer powers then suffer more than the older habitual activities, and thus cause a reversion to earlier types. The normal man moves away from primitive men because he is adjusting himself to new and better conditions, and is made normal by these tendencies. He adds to his vitality through his better adjustment, and thus is able to expand his wants

and activities, through which a still better adjustment is attained. There is thus a differentiation going on between those of decreasing and increasing vitality. More vitality develops normality; less vitality impels toward abnormality. The newer powers suffer from a decrease of surplus energy. Wants and activities are thus concentrated, and survival is possible only by moving into a simpler environment, where the older and more habitual forms of activity command success. Vitality forces a choice of environments harmonizing with its amount. It may also lead to an increase of anabolic habits, with degeneration, reversion, and depravity as consequences. All these are involved in retrogression, and are different names for the same process. A concentration of wants takes place only in an unfavorable environment, with an increasing number of obstacles to surmount. Depravity is excessive attention to these absorbing wants, and an aversion to it must be a part of all tendencies that expand wants and activities. Growing desires also cause a greater absorption of nutriment and a weakening of the motives to activity. If these anabolic tendencies continue, the organism becomes sluggish and sinks back into some simpler environment, where less activity is demanded; if reversion is not possible, it becomes a parasite, getting its nutriment from an active host and thus reducing the need of activity. Anabolic variations among men are the cause of the social parasitism, since improving conditions allow those with concentrated wants to become dependent and lose their vigor. Selection must therefore favor the growth of katabolic habits. In each new equilibrium man is more

energetic, while nature and society to a greater degree become a storehouse in which the waste of activity can be repaired. The abnormal thus tend to become more abnormal through the growth of anabolic habits, while the normal increase their normality through the growth of energy and a closer adjustment to nature.

There is thus a progress by the concentration of wants and activities which, forcing men deficient in vitality into simpler situations, leaves those with more vitality better opportunities to develop. There is also by the expansion of wants and activities a progress in which there is no elimination of individuals. Men with increasing vitality escape competition because the pressure of their wants and activities forces them into new situations. In this case there is a natural selection of environments corresponding to the natural selection of individuals in the other. Men of energy constantly discard poorer situations, just as men without energy seek them or tend toward parasitism. The pressure of expanding wants and activities is thus an independent factor in progress, and is a force wherever the increase of energy disturbing the normal equilibrium impels men toward the better adjustment of a broader environment. Between these two lies a third form of progress, — progress by influence. Many who would not of themselves break with their environment are carried along with a forward movement. A nation may progress steadily, even if but a few persons are stimulated by increasing energy to an expansion of wants and activities. Then progress by influence affects other persons and creates standards to which all men aspire.

Evolution on its organic side predicates a rapid rate

of increase and an inherent tendency to vary in all organisms. Place these organisms in a fixed environment and the ensuing struggle develops an economy of structure and the growth of useful qualities. The eliminating force lies in obstacles that the economy of structure and the concentration of desires tend to overcome. The acme of this economy and concentration is the normal which leaves out every non-essential to present existence.

Since its primary impulse is toward the pleasurable, increasing energy does not have its direction determined by these laws. Its action lacks the economy of the normal, because it makes its exit through the non-developed as well as through the developed parts of the body. In the present situation, this growth of non-essentials is useless. Their usefulness comes from the impetus they give to seek new situations where the pleasurable activities are also useful. Men change environments to get an outlet for surplus energy; they change commodities, mechanisms, food, and other particulars to get the economy that prevents elimination. The one is a progress toward the ideal through expansion; the other is a movement toward the normal through economy and concentration. There is thus a progress through the selection of individuals and also a progress through the selection of environments. The one leads to the perfection of economy; the other to the perfection of energy. Social integration demands both normal standards and ideal ends so that the useful may become the pleasurable, and the pleasurable at the same time may become the useful. Where both these tendencies are in operation, the social surplus grows.

But where there are obstacles to be overcome, the desires grow until the energies are sufficiently concentrated to force an economy of structure by which the pain of the useful action is reduced. The desires are thus cost eliminators and attain strength enough to effect the economy and elimination that are their end. Any surplus pleasure is transformed into free energy which impels its possessor to expand his wants and activities in the direction of the ideal.

Partial adjustment has thus its pains and its compensations in satisfaction, and it yields a surplus increasing as action becomes normal. In addition to this surplus, every increase of energy creates a self-perpetuating surplus from which there are no deductions. Complete adjustment has nothing but pleasurable activity. Normal standards are transformed into ideals, and thus a goal is set that gives a definite end to activity. The pleasurable becomes increasingly useful, as these ideals are attained through environmental changes. Clear ideals are thus the great source of the surplus, since they give a direction to progress impossible to secure from any economy of structure or elimination of the unfit.

Social reasoning.

Reason is apparently the highest stage of human development, and thus becomes the criterion of truth and right living. Viewed, however, as a part of the evolutionary process, it does its work more or less imperfectly, as do all developing faculties. In this light, it is one of the results of indirect activity, and a complement of desire growing perfect in the regions where desires dominate.

When obstacles to success must be surmounted by

indirect opposition, the initial change is a growth of desire to meet the situation. If certain satisfactions are delayed or prevented, particular desires must grow until the activities are so concentrated that the goods giving these satisfactions are produced. Were all indirect opposition met in this simple manner, the process of adjustment to new situations would take a long time. Psychic reactions are of slow growth, and when made are changed with even greater difficulty. Reasoning, however, by increasing the indirectness of action, reduces the necessity of strong desires and a consequent concentration of activities. In direct attack, failure and probable elimination result if some one activity is not vigorous enough to meet the situation. Indirect attack utilizes several activities, none of which need be so strong as the one made use of in direct attack. The desires that stimulate these activities are, therefore, more varied and individually weaker than the passion that aroused the one activity needed for direct attack. When reasoning supplements desire and points out still more indirect methods of approach, the number of useful activities is again increased and each of them may be weaker than if the situation were met solely by a growth of desire.

So, also, when the environment is altered the old desires remain, creating cravings for their satisfaction. If a change in desires were the only method of adjustment, a painful evolutionary process would be necessary until the old desires had disappeared and others had been substituted for them. The man would have different wants, but no more of them; he would have changed but not progressed. The use of tools, increase

of capital, growth of commerce, and improvements in agriculture, however, allow old wants to be supplied in new situations. The number of pressing wants is thus increased, the concentration of wants and activities is less marked, and the desires are not so strong as if more direct methods of approach were used. Reasoning furnishes a ready and easy method of adjustment to new situations which it would take ages to bring about if they were met by the slow growth of desire.

Reasoning and desire, therefore, are due to indirect opposition, and their presence shows that adjustment is but partial. An obstacle to success is needed to arouse desire, and the pain of non-satisfaction stimulates reasoning. The premises from which the reasoning proceeds are connected with the obstacle that arouses desire. Every situation is simplified by reasoning, until only the essential features of the opposition to the satisfaction of desire are apparent, and then a weaker desire or several lesser desires can concentrate the activities enough to remove the obstacle and to bring the satisfaction that the desires crave. Hence, the particular conditions of each environment determine the strength of desire and the clearness of reasoning. When reasoning is once developed, it may be used in many fields; when desires spring up in local situations, they may be kept alive in many other situations, but the clearness of reasoning is fixed by the original situation where its exercise is a condition of survival, and this situation also fixes the strength of desire.

Indirect action, therefore, has three primary laws. First, desire must be strong enough to concentrate the activities sufficiently to overcome the obstacles to success.

Second, the power of reasoning must be sufficient to eliminate errors in choosing the easiest path to overcome the obstacle. Desire thus creates the motive of approach, while reason points out the path. The third law is that persons with the same desires hold the same premises. Such persons have a common environment and the same obstacles to overcome. Desires, it must be remembered, are wants concentrated to meet local conditions. Premises for reasoning come from a clear perception of the obstacles that concentrate wants in these situations. Desire and reasoning, therefore, cannot be separated. They have the same causes, are due to indirect activity, and are parts of the partial adjustment that appears when obstacles to success must be overcome.

Individuals thus come into societies with desires and premises that result from the evolutionary process of which they and their class are products. This reasoning is correct enough to furnish an adequate guide to individual conduct; and those having common desires and premises can discuss with each other and unite upon standards that have a rational basis. For individuals, and for single classes, reasoning may become a guide to action, but it cannot arbitrate between classes. It is the essence of class or race differences that the members of each group have desires and activities peculiar to particular situations. Each environment creates a concentration of wants to meet the special obstacles it forces men to surmount, and their premises harmonize with these desires. There can be no common premises to all these groups because there are no common desires, or, at least, the premises of each group are partly differ-

ent because their desires are not the same. As soon, therefore, as a united society develops among different classes or races, common premises disappear, leaving it in a position where passion and struggle must settle class and race conflicts.

The concentration of wants and activities out of which reasoning springs is due to the obstacles of a partial adjustment. Opposed to this type of progress is that due to the expansion of wants and activities. The surplus energy goes out in new channels, and by this energy impulses are created that press on to a complete adjustment. Each new outlet of surplus energy stimulates some ideal and an activity to realize it, so that new ideals and impulses appear with each expansion of wants and activities. In a complex society with different classes, the surplus energy of all of them will go out in the same direction — the line of least resistance in the new environment. The new ideals and impulses of all classes will be the same because due to present conditions. But the old desires and the old premises will be different, for each class or race has those that developed in earlier situations. The rational, based as it is on past conditions, will, therefore, fail to give a solution to social problems or to furnish a basis upon which classes or races can unite. The new impulses and ideals being all that great races have in common, social problems must be treated from the standpoint of complete adjustment. To passion and conflict there is no check, except in the growth of common impulses and ideals. Social harmony lies in what the race has before it, and not in that through which its component elements have individually passed.

Let me restate this thought, starting from a more elementary principle. If vitality is increasing, the surplus energy seeks new outlets and brings society into accord by giving to its members hopes and aims in harmony with existing conditions. They all move in the direction of the pleasurable, making it the useful by forcing environmental changes. If, however, the vitality of individuals or classes is decreasing, they restrict their activities and concentrate their attention on the part of the environment made vivid by their heredity, and reason about it until its features are transformed into clearly defined premises, the use of which gives greater economy to action. This tendency to return to antecedent conditions favors social disintegration, and so develops a hopeless philosophy. Clear, shrewd reasoning, egoistic action, and a pessimistic tone result from the depression of a losing conflict, which gives to the defeated no escape but through a retreat to a more restricted environment. A dialectical civilization or party is always disintegrating. Each class falls back on its primary instincts and traditions, and these relate to the local conditions under which the class originated. In disintegration there appear as many groups and as many distinct types of reasoning as there were original elements out of which the society sprang. Even in the most progressive societies, some classes and individuals are withdrawing from open conflict because of reduced vitality; others are using their surplus energy to enter a larger environment. The first class emphasizes desire and reason; the second develops the impulses and ideals which the larger situation demands. Society thus disintegrates on the side of desire and integrates on that

of impulse. Desires are the outcome of past conditions and local situations, and as they become prominent they isolate men into the elementary groups out of which society came. Impulses spring from the new situation acquired through surplus energy. They blend the isolating elements and give a prominence to the new and the general toward which society is moving. People sinking in vitality hold tenaciously to old dogmas, while those increasing in vitality believe in doctrines giving scope to their growing energy. The latter will reject old truths because their increased vitality causes them to test the situations which block the way to new activities. This class will believe in what they are doing; the other in what they have done. A progressive group is always united, because the beliefs of its members come from their acts and impulses; a stationary group falls apart through the tendency of each faction to emphasize a past in which other groups did not participate.

In his "Social Evolution," Mr. Kidd affirms that rational conduct fails to create social progress, and that religion has been the power uniting men and causing them to subordinate their individual interests to general welfare. This doctrine harmonizes with the thought that the desires and the reasoning based upon them are socially disintegrating. Individual passions can be suppressed by reasoning; all their elements lie in one consciousness, and clear reasoning can subordinate the less essential to the more important. Social passions cannot be checked in this fashion. There is no one consciousness in which all feeling centres. The different groups do not have the same desires, because those of

each group had their origin in particular local conditions. The premises of the groups will not match, and their utilitarian calculus will vary with the kind and intensity of their desires. Each group reasons accurately and sums up its pleasures with equal facility; but premises and desires differing, no common conclusion can be reached. Rationalism fails in a complex society because there are no common premises, nor is there any general utilitarian calculus. The seemingly general principles are, after all, not universal, and when an attempt is made to enforce them, struggle and disruption follow.

The victories of religion are in complex societies. The great religions emphasize the impulses of men and thus unite men on the issues where progress is possible. The standpoint of partial adjustment can do nothing to placate struggle and conflict between classes and races. Only in the ideals and impulses of complete adjustment does harmony exist. For things social there is either no adjustment or complete adjustment. In family life, for example, the desires of men and women are not all in common, and their environment cannot be the same. A man and wife can therefore argue endlessly on this basis, with no other result than the disruption of the family. For those who are partly different there is no rational basis of agreement.

In politics rational principles succeed only in simple societies where no distinct classes exist. A common environment and common desires create a united race and a rational basis of action. But when the boundaries of the original situation are passed, and those having other desires are incorporated into the nation, the old

basis of unity is gone. In America, for example, the descendants of the Puritans do not have the same desires, and therefore do not reason in the same fashion as the Irish, the German, the Italian, and others that have been admitted to citizenship. Any rational campaign based on the accepted principles and traditions of particular classes tends toward social disintegration. It is only the newer impulses and ideals which all have in common that serve as a basis of unity. Men must be idealized until all differences disappear; the national environment must have its general features emphasized until the peculiarities of locality sink out of view; the misery of cities and the hardships of country must be lost sight of in the fresher view of life that art and nature arouse. There is nothing but disruption in the premises of isolating desires or in the local traditions of the incorporated factions.

There is in all this a single principle so important that it needs renewed emphasis. Reasoning is based on the concrete conditions that create obstacles to satisfaction. Being bound up with desire, it reflects the standpoint of partial adjustment, and fails, therefore, to unite classes and races when these must be blended into larger groups. It resembles parasitism, because it imposes on those who doubt its premises the difficulty and danger of testing them. Only those with free energy dash against the obstacles they represent and thus discover whether or not they are parts of the real environment. The reasoner is less active than the doer, and depends upon him for present adjustment. When a member of a group or society, it acts while he protests, and thus he enjoys without effort what

others gain. Individual progress goes from passion to desire and ends in the rational and normal, while social progress goes direct from passion to impulse and ends in the ideal and perfect. Every individual and nation must go through both kinds of progress, which must, however, be kept distinct. It is a bad rationalism that seeks to dispute with others about their desires, or that tries to force on them premises not given by their own environment nor coming from their race experiences. It is an equally bad idealism that tries to dictate about present conditions, or to force men to ignore the warnings which the desires give of the existing evils. The standpoints of a partial adjustment and of a complete adjustment must exist side by side and exert an influence on acts in their own sphere. Men should reason where they are alike, but where they differ they must have impulses to move them toward some common goal.

CHAPTER III

Income as Modified by Economic Rights

The source of rights.

If economic forces alone controlled the disposition of income, the problem of distribution would be simple. As prosperity increased productive power, a rise in the margin of consumption would socialize the increased income. The absence of the power of substitution might at first create rent, and the force of tradition might hold men to old forms of activity thus leading to exploitation; but the power of substitution would finally be restored, and the old traditions would break down or be replaced by others in harmony with present conditions. The gradual equalization of income cannot be prevented by rent nor exploitation; they are checks, but not bars to progress. When a homogeneous race is in touch with a fixed environment, economic equality is sure to be attained. Prosperity, therefore, means social progress so long as the only forces in operation are economic. But when race differences enter, the rational basis of equality fails to preserve unity, because there are few common desires, and the traditions of each race or class are the result of its past conditions. The surplus energy that would have gone into new channels is consumed in struggle and conflict.

There is no check to passion and conflict except through the growth of common impulses. Race impulses are vital, not rational, and depend upon superior

vitality and surplus energy. Increase the vitality and the surplus energy of all will go out in directions fixed by the present environment, so that the new impulses will be felt by all who participate in prosperity and thus share in the increased vitality it brings. These impulses are the only forces holding diverse races and classes in unity; the smaller groups are held together by tradition and desire. For these groups the standpoint of partial adjustment with its utilitarian calculus suffices, while the larger unity of races and classes is formed by a movement direct from passion and conflict to the equilibrium of complete adjustment. Surplus energy moves toward the pleasurable — the new that has no alloy of pain; and this is the ideal of complete adjustment.

Individual progress starts with the perception of an obstacle to surmount; there is a pain followed by a desire, and a rational procedure is devised to avoid the pain and to satisfy the desire. The movement that safeguards against the pains of the environment ends in a moral code, and is the goal of individual progress; but social progress starts from new resources creating additional income. More vitality and surplus energy is created, a new impulse to activity is formed, and then, as the goal of action, an ideal appears which is formulated as a right when there is an impulse to enforce it. As morality is the safeguard from evil, so rights are safeguards to the outlets of surplus energy, and have the same place in social progress that the moral code has in individual progress. Prosperity ends in the assertion of rights for the same reasons that adversity ends in a new formulation of moral rules. Rights and morality

thus complement each other; the one protecting the pleasure of activity, and the other avoiding the pain of non-adjustment. Hence, rights stand in the same relation to ideal action that the moral code does to normal action.

In a complex nation like the American, there is no rational principle uniting the various classes, sections, and races. Each class has its own needs, each section has its own peculiarities evoking particular desires, and each race has its own heredity. No class becomes large enough to dominate; no section is so important that the others must yield; nor is any race so superior that it can impose its heredity and tradition on the nation. There is, therefore, no rational source of unity. Each state or group of similar states has its own environment and develops desires that fit its situation; and the rational code of each region conforming to these conditions can have little force beyond its boundaries. But common to all are the new impulses that prosperity brings, and from them will come the forces creating national unity.

The labor situation has dangers because neither party to the conflict it creates is strong enough to dominate. In particular industries or localities one of the parties may suppress the other; and if this region were a nation, a group of common principles might gain acceptance. But no matter how large the industry or region, it is only a part of the Union, and its tendencies are counteracted by the conflicting tendencies of other regions. Therefore, a new tradition cannot arise, since the laborers are in the main controlled by the traditions of past exploitation while the employers are dominated by those of self-made men. Between the

pessimism of the one and the optimism of the other there is no basis for unity.

In the transformation that is now going on, by which a new nation is being superimposed on the traditions of locality, class, and race, there is little hope from the direct play of economic forces. The social surplus may be secured by workmen, monopolists, or investors; but there is no fixed division of income separating it into funds predetermined for the use of a special class. A theory of prosperity may be worked out from any of these viewpoints; and if the viewpoint is consistently held, all the essentials of prosperity may be made clear. But the conditions of prosperity give little clew to the distribution of wealth. Where race and class conflicts enter to disturb the natural flow of income, little light is thrown on distribution by a knowledge of existing conditions. Harmony and unity come from other causes.

In each locality and class a group of desires in harmony with the local environment must displace or modify the old desires upon which the existing tradition is based. There will then develop a new moral code, local in character, and yet general enough to induce large bodies of men to accept it. A rational procedure based on the desires can thus reconstruct race traditions, and unite men into groups with a basis in the present environment. Beyond this, rationalism cannot go. But it may be supplemented by impulses due to the surplus energy that prosperity creates; and these impulses, going out in the same direction, form ideals and superimpose on the local codes rights that all classes will accept. The local, class, and sectional forces making for unity are moral; the general forces

are impulses and ideals formulated as rights. It is not, therefore, from a theory of distribution that a solution of present difficulties will come, but from a better formulation of the moral code and from a clearer perception of the common rights that new impulses and ideals evoke. Economic analysis will show the causes of prosperity; but prosperity must cause surplus energy to go out in natural channels before useful checks to action and pleasurable modes of activity become apparent.

There are many indications of progress in both these directions. In each section and class a new morality is building safeguards against local, class, and party evils. New rights are also gaining recognition, even if they have not been formulated and consciously accepted. We should look for these, not where strife and party conflict force unsolved problems on the attention of the public, but rather upon those occasions and moments when great prosperity induces men and classes to lay aside the armor of struggle and to be natural because they are successful. A capitalist is rational and pugnacious in conflict, but generous and impulsive in giving. A corporation is reactionary in adversity, but sets better standards when success is assured. A party is made moral and rational by defeat; it represents the national impulse only in moments of victory. The ideals of laborers are not shown in a strike, but at times when they are organizing for mutual advantage. The progressive element of city life comes to the front, not in struggle with corruption, but in the many voluntary associations that men enter from a love of their locality. Each new organization represents some incipient ideal which, when clearly perceived, be-

comes a right that all enjoy. Economic rights are born of adjustment, not of struggle. Being the emotions of success, they are first felt by men with surplus energy and then imposed on society. The income such rights transfer comes directly from the social surplus and so makes no national deficit.

The rights upon which political freedom depends have already been worked out. They were obtained by picturing a primitive society where men were so isolated that their relations were simple and plain. The problem of economic freedom is to find a modern equivalent for the rights that in earlier times went with land. The workman of to-day should have all that the landowner of the past enjoyed. Freedom consists not merely of political rights, but is dependent upon the possession of economic rights, freely recognized and universally granted to each man by his fellow citizens. These economic rights measure freedom in proportion as there is a mutual agreement concerning their desirability, and as complete adjustment makes their realization possible. Only those rights that American conditions permit and the impulses of unimpeded activity may attain can be properly considered ideal. I shall enumerate a few, which, at the present time, seem to be in harmony with the forces making for adjustment, and if so must be incorporated in the national thought and become as clearly defined as are political rights. The rights here enumerated will doubtless be added to as time goes on and conditions of adjustment to American environment improve, or as that environment itself changes. For the present they may be considered under the following heads: —

I. PUBLIC OR MARKET RIGHTS

The right to an open market. The right to publicity. The right to security. The right to coöperate.

The right to an open market.

A free laborer takes full advantage of his industrial situation. Crusoe, surveying the range of options, worked in this or that field as his inclinations directed. The return from his industry flowed to him with equal directness. There was no obstacle to his undertaking any enterprise and getting from it all its return. The small farmer or typical peasant had an almost equal freedom. Numerous opportunities for work existed on his small estate to which he could resort and from which a full compensation was secured. Both he and Crusoe had an open field. The outward flow of energy and the return flow of goods were unobstructed and stood in direct relation to each other. This directness of all primitive relations is lost in the complicated conditions of modern industry. From each individual there is as before an outward flow of energy and a return flow of goods, but between the two exists a gap which is filled in by other workmen aiding in the creation of goods. Each worker puts in the industrial process a product of his own, and gets back something he has not made or has only partly made. This process has been often explained, and does not need description. The essential point is that the workman, instead of watching his product slowly going through its many changes and finally claiming it, sells it in the general market and buys from it whatever he needs. The market thus stands for all the unseen changes

taking place between the day when the laborer does his work and the day when his final reward appears. Although the changes in the form of products take place beyond the gaze of the workman, his interest in them is none the less, nor is the process different from the simple circuit of a Crusoe or a peasant. If the proper amount of goods fails to come back, the effects are as detrimental as if Crusoe or the peasant were deprived of their products. The market is open if the goods return in their proper amount; it is closed or obstructed if they do not. For each laborer the outward flow of energy and the return flow of goods must be unimpeded. The existence of a market creates complicated industrial operations, but it should preserve the simple relations enjoyed by an isolated worker.

The right to publicity.

When each workman passes to other workmen the product of his labor, the openness of the market can be insured only by the right of publicity. He must be able to watch the circuit through which his product passes from the time it leaves him until it returns in the form of goods fit for use. Each workman must assert this right to maintain his economic freedom. Transactions hidden from the public view disturb the relations between the outflow of energy and the return of goods. Those who are exempted from inspection extract an unearned share from the gross product of industry, leaving the real workers to struggle as best they may for the diminished remainder. Unseen claimants are preferred creditors and get their shares paid first.

The right to security.

Security is another right belonging to isolated producers which must be fully preserved in modern industry. The product of a man's industry must be left in

his possession, and all his industrial relations must be free from arbitrary changes. A bad monetary standard is no less harmful than an unjust system of taxation. Speculation and other arbitrary changes in prices also violate the right of security by forcing men to sell at low prices and to buy back the final product at high rates. Security, moreover, is not merely a question of property rights. It also relates to utilities and activities. The consumer has a right to stable prices and the workman to a steady position. An arbitrary discharge of workmen disturbs industrial processes and should be carefully guarded against.

The right to coöperate.

Industrial efficiency results from the formation of productive groups whose members work for common ends but in different ways. This division of labor, though due to objective conditions, cannot be made effective unless psychic changes in men permit them to work and live in harmony. Group activity, a feeling of unity, and a community of interests add quite as much to the efficiency of labor as do favorable conditions. Coöperation is not an objective relation, but a cohesive instinct which will not be formed without some flow of income raising the condition of the group above the bare minimum of existence. A group with steadily lowering wages will not hold together. Social interests are created by upward movements in the standards of living, through which greater cohesion and more power in struggle are obtained. The right to coöperate is a right to increased income.

2. SOCIAL RIGHTS

The right to a home. The right to develop. The right to wholesome standards. The right to homogeneity of population. The right to decision by public opinion.

The right to a home.

Marriage is a permanent coöperation between the sexes under such conditions that its purity can be maintained, and children raised that will be a credit to parents and the community; and it involves everything needed to secure these ends. There should be no necessity of living in a social environment where either party is tempted to break marital vows, or where the lack of income to support a family prevents pure social relations. No industry should be continued under conditions that force the rate of wages so low that healthy children and high standards are impossible or even put in jeopardy. The right to a home is essential to a pure social life, permanent sex relations demanding a fixed material environment for each family. A home is not merely a place in which to sleep and eat; these are merely animal needs. It is a secluded retreat with a standard of comfort above the mere physical wants; for without privacy and income there is no home. Marriage thus requires an income above the individual wants of the contracting parties, and the need of this additional income is increased if the social environment is so bad that home life must be protected from the degrading influences of the locality. As soon as it becomes questionable whether young people can marry without losing the social standards in which they have been reared, there is an evil at hand which society must remove or suffer a deterioration that corrupts social well-being.

The right to develop.

Education has become an essential feature of state activity. Each generation should reach a closer adjustment to its environment and be able to secure better conditions from it than its predecessors enjoyed. This means that sons should be better prepared for life, and their education should be extended through a longer period. The longer children are in school, the more complete can this preparation be, and the more efficient will they be when they enter the industrial world. Employment in some narrow field cramps the physical and mental development unless it is entered so late that individual habits, manners, and morals are fully formed. A single activity is depressing and demoralizing. The injury is counteracted only by the impulses and activities brought out by early education.

Development should not, however, end with entrance into business. It is not enough that men become efficient workers. Every man should have an opportunity to bring his faculties to perfection. The stimulus to higher thoughts and activities lies mainly in the larger world which men enter only in their period of leisure. The process of education should continue as long as men live. They should never lose contact with the institutions bringing new truth within the reach of the masses. Books, lectures, illustrations, and experimental methods of presenting science can prevent that crust of ignorance and habit from forming which renders men static and reactionary. Old men are conservative because they have lost contact with the progressive elements in civilization. Had their education continued, this cramping of character might have been avoided. The right to develop means the right of contact with

all the elevating forces in a civilization as long as life lasts. Whatever narrows the environment of individuals or limits their activities, stops their growth and checks social progress.

The right to wholesome standards.

An opportunity to develop depends on the social surroundings of a people as much as it does on the educational advantages. If a man must work and keep his family in contact with the degrading influences found in cities, it is impossible for him or them to maintain their moral purity. Wholesome social standards are a part of the conditions demanded for the steady improvement of each person and family. It is not enough that moral principles and elevating ideals be taught in the schools. These can have but little permanent influence unless embodied in practical rules of conduct which individuals observe throughout life. School knowledge should be converted into social standards to which all must conform. Any community will be contaminated if a minority is allowed to violate social conventions and to introduce degrading practices. Men tend to sink to the level of their community or class. A progressive nation must therefore rigidly preserve its social standards and supplement them by higher and more complete expressions of national life.

The right to homogeneity of population.

To create or to maintain social standards, the instincts, habits, and mode of living of all the people must be so similar that they are moved by common impulses. Even slight differences create race hatreds, and then each class is willing to forego or destroy a general advantage in the hope of injuring its enemies. Tendencies toward castes or sharply defined groups weaken the force of the principles and motives upon which common action

depends. If the differences are marked enough to prevent intermarriage, each group can be set off against others, and no general rights or ideals are evolved through which social unity is secured. Of the bad effects of this state of affairs, the political condition of Austria bears witness. The differences in Ireland between the Orangemen and Catholics, and in the Southern States of the Union between the whites and blacks have the same origin, as has also the Anti-Semitic agitation in various countries. The lack of homogeneity in these and other cases blocks progress and arouses hatred, where otherwise cordial relations would grow up.

It does not follow from these facts, however, that social harmony is impossible while differences in race and religion exist. If these races are in different localities or in different industries, no opposition of interests need appear. Each industry or locality can then develop customs, habits, and ideals suited to its peculiar needs, which would not conflict with those naturally developing in other places and industries. Economic freedom does not mean the dominance of a single race throughout the whole world. There may be as many types of men as there are different groups of industrial conditions. There is no single world environment, but a number of local environments, with features so distinct that different types of men have naturally evolved. Each race should move toward that environment where its industrial efficiency is greatest, and leave other races in possession of regions where their superiority is apparent. To move negroes north instead of south, or to bring the people of Asia to

America, violates natural tendencies, and brings on social conflicts. Every race should be given security and prosperity where they belong, but should not be allowed to disturb the orderly development of regions for which they are not fitted.

The right to decision by public opinion.

It is, however, homogeneity of population, not homogeneity of opinion, that is demanded. Population is homogeneous when intermarriage takes place and common instincts, habits, and impulses develop. Opinions are homogeneous when the premises of reasoning are the same, and this involves firmer social bonds and identical environing conditions. The homogeneity of opinion is demanded only in the case of public decisions. The minority must cheerfully submit to the majority, and accept for the time a public decision reached through calm discussion. The decisions of a homogeneous population will represent the general welfare. The great issues that the public decide are determined in the long run by the effect that given measures have on the adjustment of the nation to its environment. Laws will soon be repealed that fail to increase the general welfare. Democratic tendencies are advantageous in a homogeneous population, because the simple test of increased adjustment to the environment can always be applied, and the results made apparent. But class or race hatreds distract the attention and bias the opinion of so many that the application of the proper tests is impossible. Only when the people in a region or industry are conscious of their similarity and kinship can a moral code develop binding them together in peaceful relations.

3. RIGHTS OF LEISURE

The right to comfort. The right to leisure. The right to recreation. The right to cleanliness. The right to scenery.

The right to comfort.

In modern nations the productive power is more than sufficient to produce the minimum of existence. There is a social surplus above the costs of production in which every worker has a right to share. All men cannot be made wealthy, but they can be made comfortable by some of the social surplus going to each of them. The right to comfort is a right to share in the social surplus; it demands that the workman get on each increment of his production some surplus above its cost. To be free is to be comfortable, to have a home and the decencies that go with it. Frugality, contentment, and domestic bliss are impossible unless the surplus of the isolated worker is retained by the workman in complex industrial conditions. The right to comfort is not a right to equality in the distribution of wealth, but to that income necessary to secure to the worker the best physical conditions. Mere living means unwilling, painful labor, for no one works efficiently without surplus energy.

The right to leisure.

The right to leisure is a corollary to the right to comfort. No matter what income a person receives, he cannot be comfortable without some time for enjoyment. Leisure means more than time to eat and sleep. The full revival of mental and physical powers demands a period of rest in which the loss of surplus energy can be restored. A normal working day must end while work is still pleasurable. Any drain on the system

reduces the vitality of the worker, and causes a reduction in future production greater than the present gain from overwork. The right to leisure is in harmony with the greatest efficiency, and cannot be lost by workmen without detriment to other classes besides themselves.

The right to recreation.

The right to recreation may be regarded as an outcome of the narrow division of labor demanded by production on a large scale; for then work is a constant repetition of single acts, tiring some parts of the body but leaving other parts without sufficient exercise. The normal man must have all the parts of his body developed and all his mental powers kept active. Recreation is the only process by which this is accomplished. Each one must have outside of his industrial occupation enough activity to revive and sustain the mental and physical powers of the normal man. There would also be a racial degeneration if each class neglected the aptitudes and mental qualities not demanded in its particular occupation. The homogeneity of population would then be destroyed, and with it would disappear the bonds that keep society peaceful and harmonious.

Leisure is a demand for time; recreation is a demand for active occupation outside of labor hours, and involves conditions that can be secured only by large social expenditures. Walking, cycling, travelling, and other forms of exercise are made agreeable only by pleasant surroundings; hence, good roads, attractive streets, fine parks, and wholesome places of resort are necessary. Mental recreation also demands churches, concerts, lectures, libraries, public discussions, and other means of exciting spiritual life. Present expenditures

for these purposes indicate that this right is partially recognized, but it must gain more complete recognition before industrial efficiency reaches its maximum.

The right to cleanliness.

The isolated worker in a primitive society had all the conditions upon which health, vigor, and physical well-being depended. The control of a quantity of land enabled him to avoid the evil consequences naturally arising from the pollution caused by himself, his family, and his stock. With a sparse population nature easily restores normal conditions by transforming refuse matter into useful products; but the close proximity of men in advanced societies destroys their power to keep clean and their surroundings pure without similar cleanliness and purity on the part of their neighbors. The filth of one house or region destroys the exemption from disease which isolated families enjoy. A whole city may suffer from an epidemic started among a few families or in some neglected street. Where no disease is communicated, the refuse of uncleanly places contaminates the air and depresses every one. Even food is poisoned by the presence of noxious compounds and by microbes. The surplus energy of city people is reduced by these evils and no hope of improvement exists except in measures affecting all persons and places. Clear water, pure air, and clean streets are matters of public interest, and for these ends the social surplus should be freely used. Public control should be extended to everything that lowers the vitality of the working population.

The right to scenery.

The close contact of men in modern societies also affects men unfavorably through their loss of touch with nature. The beautiful in nature is marred or

destroyed by the processes through which wealth is created. The eye needs protection as well as other organs of the body, and the impressions that come through it are as important as those made by any other contact with the external world. Men should provide for their visual environment with the same care they exert in providing for other material conditions. Not only must natural scenery be preserved and restored, but the demands of city life for corresponding advantages in its architecture, museums, and parks must be met. The eye should never be needlessly wearied nor its sensitiveness to harmonious relations destroyed. Bad streets, incongruous buildings, and glaring advertisements depress men, reduce their productive power, and check the growth of social feelings.

4. EXCEPTIONAL RIGHTS

The right to relief. The right of women to income.

The right to relief.

Besides the general rights belonging to every person in the industrial world, there are two which grow out of special conditions. Every one is liable to misfortunes, and the hazards of business are such that forethought cannot guard against them. The safest of investments become worthless, health breaks down, accidents happen, employment is uncertain, and sickness reduces families to a condition where aid is necessary. Against these and similar hardships no individual can adequately provide, and if he could, it would be more economical to have them guarded against by public measures. The orderly development of higher

wants, tastes, and standards is delayed or prevented by any disturbing fear that the forethought and energy providing for them will not attain the desired end. Society alone can remove this dread by giving full protection against the evils of the industrial world. The energy and the skill of each person should be left free so that the reward for work can come to the worker; but misfortune is not an individual affair due to conditions that individuals make. The evil may lie in the environment, as in the case of a failure of crops; it may be due to accidents for which others are to blame; to the diseases and degradation of bad local conditions; or to social disorders over which single persons have no control. In such cases social evils should be met by social action. Make the individual responsible for the results of his own acts, but do not let him suffer from what he could not avoid. A system of relief is an essential to industrial freedom; economic activity will not reach its maximum until it is so effective that the energy of individuals can be applied to the satisfaction of their own wants. The social surplus is more than sufficient to provide for all the exigencies that persons cannot control.

The right of women to income.

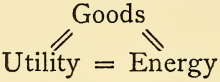
There is another special right growing out of the peculiar position of women. Certain restrictions to woman's activities have become general, partly the result of her position as a mother, and partly as an outcome of social conventions which have grown up in advanced nations. It is not necessary to determine whether woman's evils are physical or social. If physical, there is a natural ground for giving woman a preference; if social, this preference should continue until society is reorganized on

some other plan. While husbands and fathers demand that wives and daughters refrain from earning an income, public opinion and law should support the claim of women to an adequate support. It is not enough that wives have the right of support, and that daughters be provided for, so long as their father's home remains open. The disabilities of women are general and affect all women. The provision for them should also be general, and is most needed by those having neither friends nor homes. In some occupations women have an income adequate for their support. This, however, cannot become the general rule so long as the present family arrangements and social conventions continue. Grave evils must continue until society gives to women workers an income large enough to insure their physical and moral well-being. The operation of economic forces may do this for men, but it must fail in the case of women so long as they suffer from physical and social disabilities. The social surplus should therefore be freely used for women. No one has a right to bring a girl into the world without providing for her support, and this support should have a first claim on every estate. If women are kept from industry for family reasons, the family should provide an income for them. Where private means of support fail, preference should be given them in industries for which they are especially fitted. No society is safe, nor can it be moral and progressive, until women are fully protected and have independent incomes. The law should compel it, if higher motives do not move men to compensate women for the evils to which they are liable, and from which they cannot escape without losing qualities that

men admire. Women will be crushed or idealized; and if idealized, income and independence are essential. The great problem for men, after all, is the problem of women. Men do the work and bear the burdens of to-day. But women shape the men of to-morrow; the outgo of energy toward them creates a store upon which the future can draw.

A summary.

A self-perpetuating round of production and consumption is the goal of economic activity, and represents an equilibrium between the outgo of energy and the return flow of goods.



If the goods produced do not give enough utility to restore the lost energy, the equilibrium is reëstablished by the growth of desire, and when once formed, subsequent improvements make an excess of energy possible. The accustomed activity now produces more goods, from which come more utility and more energy. The excess must go out, but need not bring back a corresponding amount of utility and nutriment. Impulse is the exit of this energy not needed to keep up the equilibrium between waste and repair. Katabolic tendencies can be brought to an equilibrium only in situations demanding more energy, but this new equilibrium will be no more stable than its predecessors. The impulses grow stronger and changes in the environment become more frequent as the surplus of energy increases. In the first stages of progress, the excess of energy is irregular and fitful, only manifesting itself when the food supply is abundant or when some unusual event arouses

the individual. Love, passion, violence, mob rule, and other outbursts of feeling represent an excess which is not steady and enduring enough for impulse to acquire a definite end. These fickle impulses are displaced by higher forms as soon as the excess becomes constant and persistent. An enduring excess must go out in the direction of its anabolic complement. If it is merely an erratic discharge, the energy is lost and the impulse lacks the surplus vitality needed to repeat itself. There is thus a marked difference between the capricious impulses that go out in any direction and those that have fixed avenues of exit; yet they all have a common origin in the excess of energy, and become definite as they increase in intensity. The growth of desire gives an anabolic complement to which the increasing katabolic excess must go out. Any failure of the two tendencies to supplement each other would ultimately destroy the individual or group in which they were present.

Among primitive men, as in the animal world, the katabolic excess of the male is temporary, and comes during the season when the food supply is abundant. Sexual impulse is thus capricious and fitful, with no end or hold on future action ; but when family relations are formed, men have a permanent excess of energy which goes out toward their wives and children. Impulse now becomes as fixed as are the conditions creating the excess of energy. The psychic feeling must be as definite as is the direction in which the surplus energy goes. An increase of the katabolic excess beyond the needs of the family becomes possible only when new impulses of equal definiteness and constancy

have been aroused. Religion, giving ends and ideals of this character, develops along with the growth of surplus energy, and following it come altruistic impulses that impel more activity and forethought in behalf of others. With the rise of cities and of nations a new excess of energy is created and new impulses elevate national and local ideals. Each rise in the plane of civilization thus creates anabolic concepts and ideals that demand for their realization a greater katabolic excess in men. Idealism is a process of separating anabolic and katabolic tendencies, so that in their complementary relations more energy is demanded and more satisfaction obtained than if each individual had in himself the conditions giving an equilibrium between activity and consumption. Economic rights represent a further growth of this excess. They become definite and constant as society, industry, and place relations (especially those of city life) become more clearly anabolic, and thus furnish ideals toward which the activity of men may go out. To the degree that men are sustained by their environment, social and physical, they can be generous in action and disregard the return flow of goods upon which the attention of an isolated self-sustaining man must always be centred. Economic rights therefore are not the product of normal tendencies, but of an excess of energy demanding no return in goods. They are felt by those who have more than they need and hence want nothing personal. Those who have less than the normal standard gain by rights, but they do not establish or enforce them. A right is a claim some one else will enforce. The permanent excess in energy of the more vigorous is trans-

formed into an impulse to elevate others to their standards, and its amount measures the force that a nation or community exerts in maintaining the rights of the less fortunate.

Social standards and rights, though often confused, have in reality distinct bases. Standards are built up and maintained by the class that profit by them. To enforce them its members must withdraw from production, restrict their number, or in some way exert an influence on distribution. All these forces must be set in motion by themselves, and nothing otherwise obtained belongs to their standard. It is thus a part of the economic equilibrium that normal men must secure. Rights give income beyond this amount. The greater equality springs from the excess of energy that creates social bonds by evoking ideals and impulses.

New rights are more easily acquired in industries that regularly share in the social surplus. Here employers are interested in the efficiency of their laborers, and are willing to adopt standards that could not be obtained in industries to which nothing goes except the minimum return for labor. Trusts, large corporations, and stable industries find it advantageous to raise wages so that by a selective process the more efficient and trustworthy remain in their employment. This means a rate of wages somewhat above the marginal return, and the existence of a class of laborers exempted from the fluctuations and uncertainties of marginal production. Industries of this kind, feeling but slightly the changes in prices that cripple and often crush the producers at the margin of production, can maintain standards that the latter would find impossible. These higher standards

become the norms by which the public measures the just rate of wages. By the process of idealization they are made universal, and imposed on all industries. A standard once seen, and shown to be practicable, becomes a social ideal creating pressure that demands its enforcement.

A final restatement.

In the first part of this book the discussion centred on the problems of economic equilibrium. Where each individual is independent and self-sustaining, the outflow of energy and the return flow of goods are equal. The problem of work and pay involves only those relations between man and nature which give the normal man a perpetual round of production and consumption. There is a second measure of normality in the equality of supply and demand; for the amount of goods withdrawn from the market cannot regularly exceed the supply brought to it. The motives for production increase as wants grow in intensity; but costs fall off with the growth of productive power, thus destroying the equality between it and the return in goods. A new equilibrium is created on the market by the equality of marginal expense and marginal utility. Wants grow more rapidly than productive power; values rise, and producers gain a monopoly power equal to the difference between cost and the expense of goods. Monopoly is thus essential to a market equilibrium, and the monopoly fund has its size fixed by the natural excess of demand over supply. Intense wants and low costs of production have no other means of equating themselves.

A third test of normality is the equilibrium between the destruction and replacement of capital. Viewed in this way capital is constant in amount, but changing

in form, thus making it too broad a term to be contrasted with land and labor. The equilibrium is between the energy of the past spent on the present, and that of the present spent on the future. There is no equality in the destruction and replacement of capital goods. More capital goods are each year used up than are replaced, many of them reappearing only as improvements in land or men. But the whole fund is self-perpetuating, and gives a return, much of which is included under rent and wages.

Normal conditions are satisfied when the economic equilibrium is maintained and each worker is self-sustaining. There is, however, a constant tendency to disturb the normal equilibrium by the creation of an excess of energy, for it is no sooner attained than it is again disturbed by the appearance of a new excess. Wants grow, and men, producing goods at decreasing cost, work longer and more intensely. An enduring excess is only possible where some complementary relation exists by which the excess of some individuals or classes is equalled by a corresponding deficit of other persons or classes. There is in a society an outflow of energy that does not return in the form of goods to those who put it forth. One part gets more than it gives, and another part gives more than it gets; or it may be that individual men put out more energy and the return is in the form of permanent improvements, institutions, and social betterments that all enjoy. The future of society is the anabolic complement of its present katabolic output. Children get what fathers create. The final Utopia is the recipient of all the surplus of preceding ages.

In a primitive society the flow of goods is from the weak to the strong, and exploitation is its measure. There is an excess of natural force aiding producers, and it is turned over by them to their rulers, leaders, and conquerors. In advanced societies, through the improvements in men, there is an excess of human energy; the flow of surplus goods changes its direction, and the strong give of their surplus to the weak; men become katabolic, and to remain normal must seek some anabolic complement; personal ideals are increasingly katabolic, demanding a greater output of energy and placing more restrictions on consumption; social ideals and institutions are increasingly anabolic, and from them sources of pain are steadily eliminated. The environment is thus transformed so that all its relations give pleasure in increasing quantities.

Reciprocal relations depend on this excess of energy, and society is more firmly welded as it grows in amount. Each class or group goes out in feeling toward those places and persons that complement its existence. This impulse is a pressure to make other things and persons better than they are, and then for each person or class to differentiate itself more fully from them, so as to increase and intensify the complementary relations. The economic equilibrium working through desire tends to make all persons equal, independent, and self-sustaining. The excess of energy as impulse differentiates, socializes, and idealizes, and hence creates bonds that hold the partly-different together. The social ideal is this partly-different—the better-than-self. No matter how well regulated is the life of the individual, the better-than-self is still above him, and the struggle for

the new level creates an additional adjustment and more self-control. The social ideal is thus a perpetual upbuilding force, constantly eliminating imperfections, but as constantly causing the perception of others through the higher normal life which their elimination makes possible. The better-than-self evokes the activity needed for its attainment, but this activity elevates the ideal more rapidly than it does the man who strives after it. Each new equilibrium creates an excess of energy, and each excess forces a new equilibrium. The economic and social thus react on each other and impel men toward a goal that is moved farther away by every effort to reach it. Perfection is never possible while man and his environment react favorably on each other. The ideal is not, however, a distant end to be reached only after an endless succession of endeavors. A part of adjustment is as ideal as it ever can be. There is a progress toward an equilibrium which depends on desire and a progress in the expansion of wants and activities that is attained through impulse. The one creates the normal, the other the ideal. These two forms of progress exist side by side, but in different fields. Men gain some ends in one way, some in the other. A civilization is forceful as the desire for the normal and the impulse toward the ideal find distinct but concurrent means of expression. They are both present realities and demand constant unswerving recognition.

The Development of English Thought

A STUDY IN THE ECONOMIC INTERPRETATION OF HISTORY

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The Development of English Thought

A STUDY IN ECONOMIC INTERPRETATION OF HISTORY

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A BRIEF STATEMENT OF SOME IMPORTANT TOPICS TREATED IN THE VOLUME

National Character. — It is not what a man sees or hears that determines his character, but the activities or motor reactions which these perceptions excite. These motor reactions are slowly acquired but persist indefinitely because they reappear in each succeeding generation. An environment, on the other hand, consists of certain definite objects and forces constituting at a given time the requisites for survival, and lasts only so long as a given group of these requisites has a supreme economic value. When a group of requisites is displaced by another, men are compelled to develop new activities in harmony with the new conditions. There has been, therefore, not one perpetual environment, but a series of temporary environments, each of which has given to the race, through the economic struggle it has excited, certain characteristics that have become a part of the national character. And thus character is the one enduring, growing element in a civilization; when compared with it, all else, whether economic or physical, is temporary and fleeting. This view of the importance of character is not opposed to an economic interpretation of history, but is a plain deduction from it. That which endures has more importance than that which is frequently displaced.

Types of Men. — Although the English race has many characteristics in common, there are several types of men so distinct in their feelings and premises that they do not respond to the same sentiments and arguments. No one type has been powerful enough to subordinate the others, and hence progress has been due more to compromise than to sentiments universally accepted, or to doctrines and creeds based on principle.

The Influence of Women. — There is, however, but one type of women. Mothers have the same interests, sentiments, and fears, and strive in the same way to guard the welfare of their homes. Women have seldom taken part in public discussions or written books of importance, but they have influenced the customs, institutions, and ideals of the race more than men because they have all striven for the same objects and have persisted until social life has been modified in the way they desire. The compromises of men have secured peace, but it is the activity of women that has caused the social progress of the last three centuries.

Stalwarts and Mugwumps. — In the English race the most prominent psychic distinction relates to the sensory and motor development of men. The stalwarts love activity and are impressed by clear ideals and bold principles. They are often carried away by high-sounding phrases and are easily induced to enter upon rash schemes in the hope of realizing their ideals. The mugwumps do not come into close enough contact with objective conditions to compel the subordination of reason and analysis to motor adjustment. They are vigorous in thought but seldom carry out a policy with energy enough to ensure success. As a rule the mugwumps are æsthetic and moral, while the stalwarts are religious and economic. The political and social struggles of the present time are due to these opposing views, and the direction of future progress depends upon which of them becomes dominant.

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